

08/814168
248
121
Class
Subclass
ISSUE CLASSIFICATION
SCANNED

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UTILITY
SERIAL
NUMBER

08/814168

PATENT DATE

JAN 05 1999

PATENT
NUMBERSERIAL NUMBER
08/814,168FILING DATE
03/07/97CLASS
248

SUBCLASS

GROUP ART UNIT
3505

EXAMINER

Phan

APPLICANTS

DAVID E. KREKELBERG, MINNETONKA, MN.

CONTINUING DATA***
VERIFIED

NONE

LDP

FOREIGN/PCT APPLICATIONS***
VERIFIED

NONE

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FOREIGN FILING LICENSE GRANTED 10/06/97

***** SMALL ENTITY *****

Foreign priority claimed
35 USC 119 conditions met☐ yes ☒ no
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CAMERA CLIP

TITLE

U.S. DEPT. OF COMM./ PAT. & TM—PTO-436L (Rev.12-94)

PARTS OF APPLICATION
FILED SEPARATELY

NOTICE OF ALLOWANCE MAILED

LONG DINH PHAN

CLAIMS ALLOWED

Total Claims

Print Claim

21

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ISSUE FEE

DRAWING

Amount Due

Date Paid

Sheets Drwg.

Figs. Drwg.

Print Fig.

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ISSUE
BATCH
NUMBER

654

Label
Area

PREPARED FOR ISSUE

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SCAN 6

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PATENT APPLICATION

APPROVED FOR LICENSE

08/814168



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CONTENTS

Date
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Mailed1. Application 2 papers.2. Ref. 1 reaffirmation3. Ref. 2 reaffirmation + 120024. Ref. 3 mos5. Ex. 1 Summary (1)6. Amend. A7. Ex. 1 Summary Summary8. Ex. 1 Amend. A B

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SEARCHED

Class	Sub.	Date	Exmr.
248	121 126 440.1 166 176.1 688 918	12/15/97	LOP
224 396	408 421 422 423 424 425 426 427 428		
SEARCH	UPDATED	06/30/99	

SEARCH NOTES

	Date	Exmr.
DERBY DISTRICT CLASS 248	12/15/98	LOP
APS SEARCHED GMA CERTIFIED CLASS 248 (APR 1999)	06/30/99	

INTERFERENCE SEARCHED

Class	Sub.	Date	Exmr.
248	121 126 440.1 166 176.1 688 918	07/07/98	LOP
224	408 421 → → 428		

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POSITION		ID NO.	DATE
CLASSIFIER		12	11/16/97
EXAMINER		116	10-8-97
TYPIST		E40	10-8-97
VERIFIER		11	11
CORPS CORR.			
SPEC. HAND		1342	10-8-97
FILE MAINT.			
DRAFTING			

INDEX OF CLAIMS

Claim		Date			
Final	Original				
1	1	01/28/98	07/14/98		
2	2	✓	✓		
3	4	✓	✓		
4	5	✓	✓		
5	6	✓	✓		
6	7	✓	✓		
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7	11	✓	✓		
8	12	✓	✓		
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SYMBOLS

- ✓ Rejected
- = Allowed
- (Through numeral) Canceled
- + Restricted
- N Non-elected
- I Interference
- A Appeal
- O Objected

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PATENT NUMBER

ORIGINAL CLASSIFICATION

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SUBCLASS

248

121

APPLICATION SERIAL NUMBER

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CROSS REFERENCE(S)

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SUBCLASS
(ONE SUBCLASS PER BLOCK)

APPLICANT'S NAME (PLEASE PRINT)

DAVID E. KREKELBERG

248

126

918

IF REISSUE, ORIGINAL PATENT NUMBER

INTERNATIONAL CLASSIFICATION

A 47 G

29/00

GROUP
ART UNIT

3632

ASSISTANT EXAMINER (PLEASE STAMP OR PRINT FULL NAME)

LONG DINH PHAN

PRIMARY EXAMINER (PLEASE STAMP OR PRINT FULL NAME)

RAMON O. RAMIREZ

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(REV. 5-91)

ISSUE CLASSIFICATION SLIP

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE



US005855343A

United States Patent [19]
Krekelberg

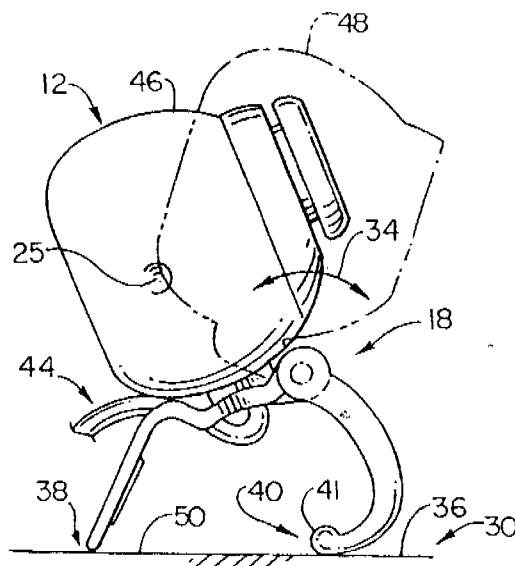
[11] **Patent Number:** **5,855,343**
 [45] **Date of Patent:** **Jan. 5, 1999**

[54] **CAMERA CLIP**[75] **Inventor:** **David E. Krekelberg**, Minnetonka, Minn.[73] **Assignee:** **iREZ Research, Corporation**, Minnetonka, Minn.[21] **Appl. No.:** **814,168**[22] **Filed:** **Mar. 7, 1997**[51] **Int. Cl.⁶** **A47G 29/00**[52] **U.S. Cl.** **248/121; 248/126; 248/918**[58] **Field of Search** 248/121, 126, 248/440.1, 166, 176.1, 688, 918; 224/908; 396/421, 422, 423, 424, 425, 426, 427, 428[56] **References Cited****U.S. PATENT DOCUMENTS**

1,208,344 12/1916 McAll 248/126

Primary Examiner—Ramon O. Ramirez*Assistant Examiner*—Long Dinh Phan*Attorney, Agent, or Firm*—Nawrocki, Rooney & Sivertson, P.A.[57] **ABSTRACT**

A clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported. The clip provides two axis of rotation to position the camera to any desired viewing angle. The clip may be rotated to a first position to support the camera on a surface of a table or desk. The clip may be rotated to a second position to support the camera on the display screen of a laptop computer. When the camera is not being supported in the first position or the second position, the camera may be rotated to be releasably held by the clip to protect the camera and lens during storage.

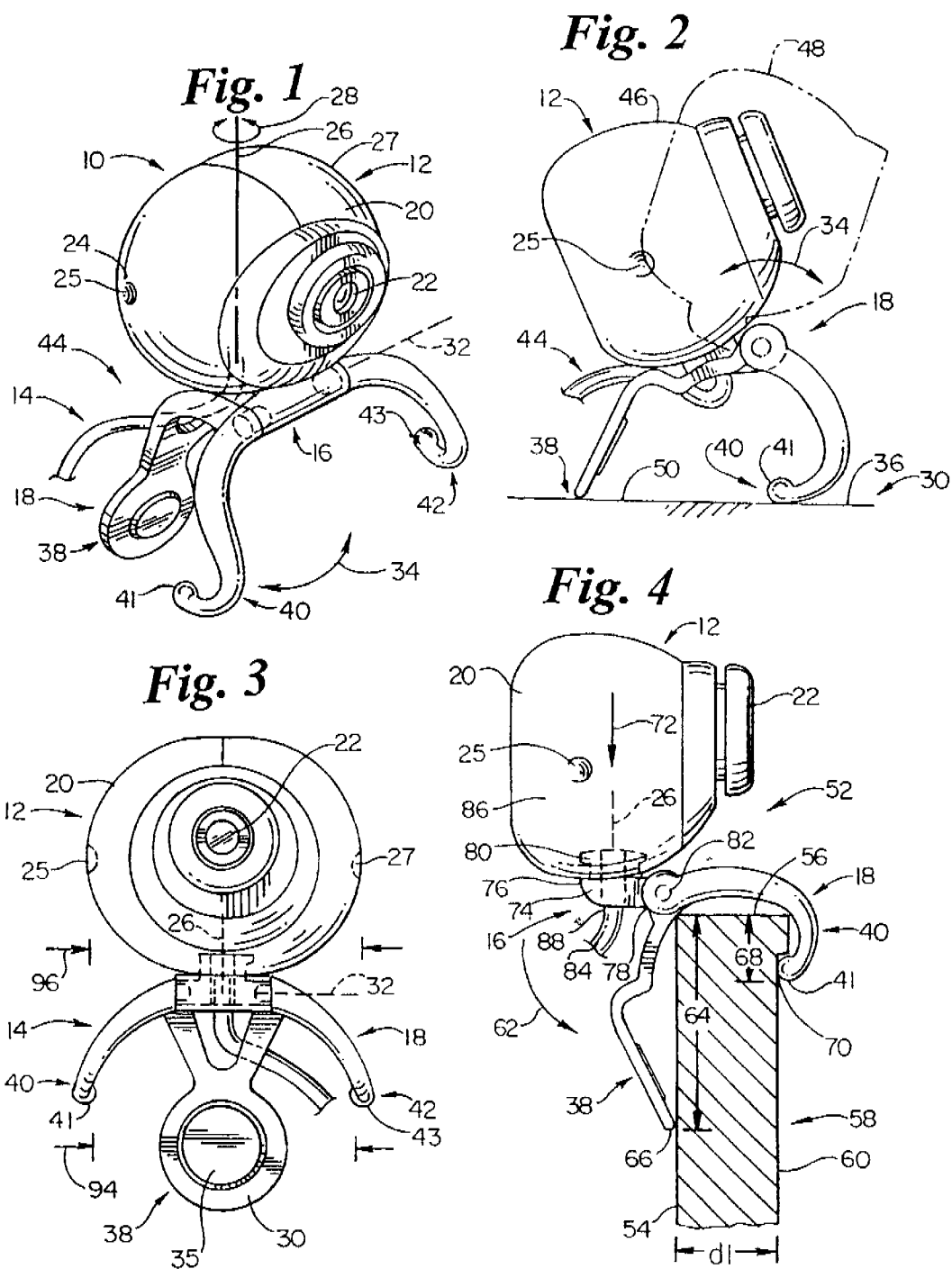
21 Claims, 2 Drawing Sheets

U.S. Patent

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Sheet 1 of 2

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Sheet 2 of 2

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Fig. 5

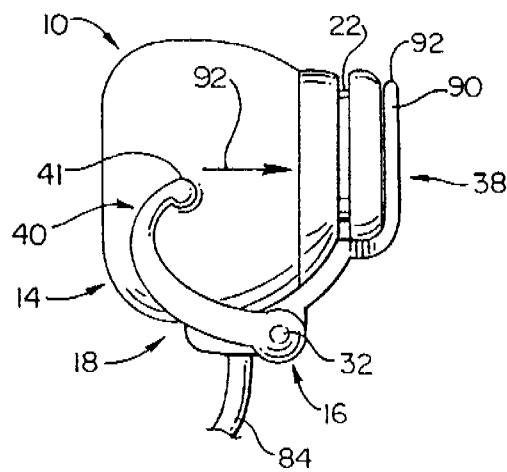


Fig. 6

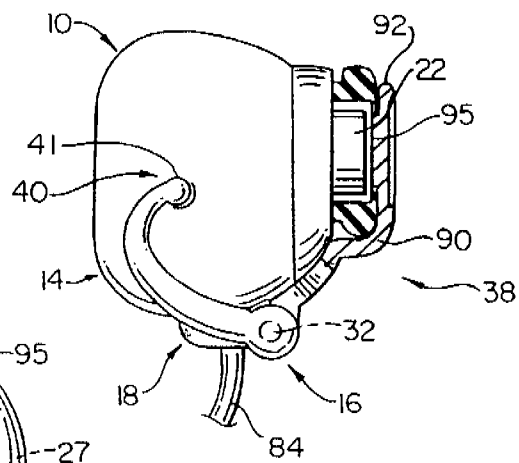
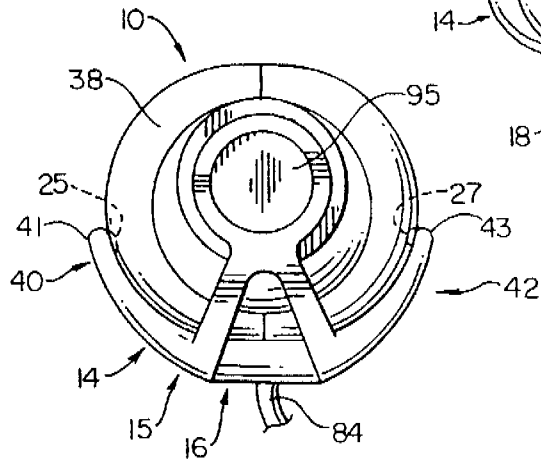


Fig. 7



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CAMERA CLIP

FIELD OF THE INVENTION

This invention relates to a clip for holding a camera. More particularly it relates to a clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported.

BACKGROUND OF THE INVENTION

With portable cameras, it is desirable to have an apparatus which can support the camera in any number of desired configurations. The apparatus must easily accommodate repositioning the camera to new orientations during use, and must be easily transportable. This is especially true when using the camera with a portable computer, such as a laptop computer. With increasing improvements in technology, both the laptop computer and camera have become smaller over time, emphasizing the need for a compatible camera support apparatus. The camera support apparatus must be versatile, light in weight, and be easily transportable to accommodate the new camera and laptop designs, and must desirably facilitate easy and safe storage of the camera. Often times portable computers are stored in carry bags which may be fully loaded with other hardware devices, such as disk drives or printers, as well as with personal effects, making for cramped storage conditions. The camera support apparatus must desirably protect the camera from damage during transport under these cramped storage conditions to avoid the necessity for separate storage means in order to maintain camera portability.

In the past, camera support apparatus were not easily transportable. Often times these apparatus utilized designs which incorporated a tripod approach, or which used one or more telescoping arms to support the camera. These designs attempted to support the camera during use, and then collapse to a smaller size to facilitate storage or transportation. While these designs were transportable, often times even the collapsed size of the prior art camera support apparatus could not be easily accommodated by a laptop computer bag. These prior art apparatus also did not provide means to protect the camera during transport, and if constructed of hard, exposed materials, tended to damage the cameras.

Another problem with prior art camera support apparatus was that they could not easily accommodate the variety of applications desired for portable cameras. These applications ranged from supporting the camera on the surface of a desk or table to supporting the camera on the upright display screen of a laptop computer. With the prior art, often times more than one camera support apparatus was necessary in order to support the desired range of applications. This unfortunately adversely impacted portability of the camera.

Thus, a desire was created within the industry for a small, easily transportable camera support apparatus for supporting the camera on both horizontal surfaces, such as the surface of a desk or table, and vertical surfaces, such as the display screen of a laptop computer, and to protect the camera during storage and transport.

SUMMARY OF THE INVENTION

Accordingly, it is an object of the invention to provide a clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported. The clip provides two axis of rotation to position the camera to any

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desired viewing angle. The clip may be rotated to a first position to support the camera on a surface of a table or desk. The clip may be rotated to a second position to support the camera on a display screen of a laptop computer. When the camera is not being supported in the first position or the second position, the camera may be rotated to be releasably held by the clip to protect the camera and lens during storage.

In a preferred embodiment of the present invention, an apparatus is provided for supporting a camera on an object where the apparatus comprises a hinge member and a support frame. The hinge member is rotatably attached to the camera where the camera rotates over a first axis of rotation relative to the hinge member. A support frame is hingedly attached to the hinge member to engagingly support the hinge member on the object, where the hinge member rotates over a second axis of rotation relative to the support frame. The first axis of rotation is perpendicular to the second axis of rotation, and the second axis of rotation is substantially parallel to a first surface of the object when the hinge member is engagingly supported on the object. In the preferred embodiment, the support frame further has a rear support element and first and second front support elements. In the preferred embodiment, the rear support element and the first and second front support elements support the camera in the first position on the first surface when the rear support element and the first and second front support elements are engaging the first surface when the first surface is substantially level. In the preferred embodiment, the rear support element and the first and second front support elements engage the first surface at three locations in a plane of the first surface to prevent rotation of the support frame relative to the first surface in any direction within the plane of the first surface. In the preferred embodiment, when the support frame is in the first position, the object may be the top of a table where the first surface is a top surface of the table. The object may also be a desk top where the first surface is a top surface of the desk.

In the preferred embodiment, the rear support element and the first and second front support elements support the camera in a second position on the first surface adjacent an edge when the first surface is inclined from the substantially level position. The object has a second surface wherein a thickness between the first surface and the second surface defines an edge therebetween. The camera is maintained adjacent to the edge in the second position where the uppermost portion of the object is the edge. The rear support element engages a first surface and the first and second support elements engage the edge and the second surface. The rear support element and the first and second front support elements, in combination, maintain the camera adjacent the edge and prevent rotation of the support frame along an axis substantially parallel to the second axis where the second axis is substantially parallel to the edge. In a preferred embodiment, the rear support element and the first and second front support elements support the camera in the second position on the first surface adjacent the edge when a first distance from the edge to the position where the rear support element engages the first surface is greater than a second distance from the edge to the position where the first and second front support elements engage the second surface. A center of gravity of the camera and the hinge member being adjacent and external to the first surface in combination with the first distance being greater than the second distance prevents rotation of the support frame along the axis substantially parallel to the second axis of rotation. In the preferred embodiment, when the support frame is in the

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second position, the object may be a display screen for a laptop computer, where the second surface is the front of the display screen and the first surface is the back of the display screen.

In the preferred embodiment, the support frame has means to releasably hold and protect the camera during storage. The camera may be rotated about the second axis in a direction from the first and second front support elements towards the rear support element of the support frame until the camera is in a position between and is releasably held by the rear support element and the first and second front support elements. In the preferred embodiment, the rear support element has means to protect a lens of the camera which is a cover mounted at a distal end of the rear support element. The lens of the camera faces a direction of rotation about the second axis from the first and second front support elements to the rear support element of the support frame to allow the lens of the camera to be fitably received into the cover when the camera is releasably held between the rear support element and the first and second front support elements.

In the preferred embodiment, the first and second front support elements are spaced a distance apart at a distance less than a diameter of a housing of the camera, where the camera is rotated about the second axis in the direction towards the rear support element so that the housing passes between the first and second front support elements. The first and second front support elements resiliently and outwardly flex to accommodate passage of the housing. The housing is releasably held after passing between the first and second front support elements by the rear support element engaging the housing at the lens, where the first and second front support elements engage the housing backside at a first indentation and a second indentation respectively to resiliently urge the housing towards the rear support element.

In the preferred embodiment, the hinge member is further comprised of a body having a proximal and a distal end where a pivot element at the proximal end of the body rotatably attaches the camera to the body so that the camera rotates about the first axis relative to the body. A hinge element at the distal end of the body hingedly attaches the body to the support frame so that the body rotates about the second axis relative to the support frame. In the preferred embodiment, the camera has an electrical wiring harness to couple from an interior to an exterior of the camera, and the pivot element has a bore parallel to the first axis of rotation to receive the electrical wiring harness to pass the wiring harness from the interior to the exterior of the camera.

BRIEF DESCRIPTION OF THE DRAWINGS

Other objects of the present invention and many of the attendant advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings, in which like reference numerals designate like parts throughout the figures thereof and wherein:

FIG. 1 is a perspective view of the "Camera Clip" invention;

FIG. 2 is a side view showing a first mode of a preferred embodiment of the present invention;

FIG. 3 is a detailed front view of the "Camera Clip" invention;

FIG. 4 is a side view showing a second mode of the preferred embodiment of the present invention;

FIG. 5 is a side view showing a third mode of the preferred embodiment of the present invention;

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FIG. 6 is a detailed side view showing the third mode wherein the lens of the camera is being fitably received by the cover; and

FIG. 7 is a front view showing the third mode of the preferred embodiment of the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to the drawings, wherein like reference numerals refer to like elements throughout the several views, FIG. 1 is a perspective view of the camera clip invention. FIG. 1 shows generally a camera apparatus 10 having a camera 12 and a camera clip 14. Camera clip 14 is further comprised of a hinge member 16 and a support frame 18. Camera 12 is comprised of housing 20 and lens 22, and has a housing backside 24 which is the side of the housing opposite of lens 22. Hinge member 16 is rotatably attached to camera 12, where camera 12 rotates over a first axis 26 in a direction shown by arrow 28 relative to hinge member 16. Support frame 18 is hingedly attached to hinge member 16 to engagingly support hinge member 16 on an object 30 (see also, FIG. 2). Hinge member 16 rotates over a second axis 32 in the direction shown by arrow 34 relative to support frame 18. First axis 26 is perpendicular to second axis 32. Second axis 32 is substantially parallel to a first surface 36 when hinge member 16 is engagingly supported on object 30 (see also, FIG. 2). Support frame 18 has a first portion consisting of first support element 38 and a second portion consisting of a first front support element 40 and a second front support element 42. Housing 20 has a first indentation 25 and a second indentation 27 to slidably and fitably receive distal end 41 of first front support element 40 and distal end 43 of second front support element 42 when first front support element 40 and second front support element 42 are rotated in the direction of arrow 34 to engage housing backside 24.

FIG. 2 is a side view showing a first mode of a preferred embodiment of the present invention. Rear support element 38, first front support element 40 and second front support element 42 support camera 12 in the first position 44, on the first surface 36, when rear support element 38, first front support element 40 and second front support element 42 are engaging first surface 36 and first surface 36 is substantially level. In the first position 44, camera 12 may be pivoted upon support frame 18 from a position 46 to a position 48. It is recognized that camera 12 may be pivoted to any number of positions about second axis 32 in the direction shown by arrow 34. In the preferred embodiment, rear support element 38, first front support element 40 and second front support element 42 support the camera in first position 44, on first surface 36, when rear support element 38, first front support element 40 and second front support element 42 engage first surface 36 at three locations in a plane 50 of first surface 36. Engagement of first surface 36 at three or more locations prevents rotation of support frame 18 relative to first surface 36 in any direction within plane 50 of first surface 36. It is understood that in the preferred embodiment, rear support element 38, first front support element 40 and second front support element 42 may utilize any number of desired geometries to engage first surface 36 to prevent rotation of support frame 18 relative to first surface 36 in any direction within plane 50 of first surface 36. In the preferred embodiment, when support frame 18 is in the first position 44, the object may be a top of a table and first surface 36 may be a top surface of the table. Likewise, object 30 may be a desk top, where first surface 36 is a top surface of the desk.

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FIG. 4 is a side view showing a second mode of the preferred embodiment of the present invention. The second mode occurs when rear support element 38, first front support element 40 and second front support element 42 support camera 12 in a second position 52 on a first surface 54 adjacent an edge 56. Second position 52 corresponds to first surface 54 being inclined from the substantially level position (see also, FIG. 2). In FIG. 4, object 58 has a second surface 60, where a thickness d1 between first surface 54 and second surface 60 defines the edge 56 therebetween. Camera 12 is maintained adjacent edge 56 in second position 52 when the uppermost portion of object 58 is edge 56. Rear support element 38 engages first surface 54, and first front support element 40 and second front support element 42 engage edge 56 and second surface 60. Rear support element 38, first front support element 40 and second front support element 42, in combination, maintain camera 12 adjacent edge 56 and prevent rotation of support frame 18 along an axis substantially parallel to second axis 32, where second axis 32 is substantially parallel to edge 56. Rear support element 38, first front support element 40 and second front support element 42 support camera 12 in second position 52 on the first surface 54 adjacent edge 56 when a first distance 64 measured between edge 56 and position 66 is greater than a second distance 68. Second distance 68 is measured between edge 56 and position 70, where first front support element 40 and second front support element 42 engage second surface 60. The center of gravity shown in the direction of arrow 72 of camera 12 and hinge member 16 being adjacent and external to first surface 54 in combination with first distance 64 being greater than second distance 68 prevent rotation in the direction of arrow 62 of support frame 18. In the preferred embodiment, object 58 may be a display screen for a laptop computer when support frame 18 is in second position 52, where second surface 60 is the front of the display screen and first surface 54 is the back of the display screen. FIG. 4 shows hinge member 16 comprised of a body 74 having a proximal end 76 and a distal end 78. A pivot element 80 at proximal end 76 of body 74 rotatably attaches camera 12 to body 74 so the camera may rotate about first axis 26 relative to body 74. A hinge element 82 at distal end 78 of body 74 hingedly attaches body 74 to support frame 18 so body 74 rotates about second axis 32 relative to support frame 18. FIG. 4 further shows camera 12 having an electrical wiring harness 84 to couple from an interior 86 to an exterior 88 of camera 12. Pivot element 80 has a bore 90 parallel to first axis 26 to receive electrical wiring harness 84 to pass wiring harness 84 from interior 86 to exterior 88 of camera 12. While the embodiments shown in the drawing figures and discussed herein illustrate a wiring harness 84 passing through a bore 90 parallel to first axis 26, it will be understood that other embodiments are contemplated. For example, wiring harness could enter body 74 at a location angularly spaced upward from bore 90.

FIGS. 5-7 show various perspectives of a third mode of the preferred embodiment of the present invention. FIG. 5 is a side view, FIG. 6 is a detailed side view showing the lens of the camera being fitably received by the cover, and FIG. 7 is a front view. The third mode of the preferred embodiment of the present invention is shown when camera 12 is rotated about second axis 32 along the direction shown by arrow 34 in a direction from the first front support element 40 and the second front support element 42 towards rear support element 38 of support frame 18. This rotation is continued in the third mode until camera 12 is in a position between rear support element 38 and first front support element 40 and second front support element 42. In this

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position, distal end 41 of first support element 40 and distal end 43 of second front support element 42 slidably and fitably engage first indentation 25 and second indentation 27 respectively of housing 20 at housing backside 24. Camera 12 is then releasably held between rear support element 38 and first front support element 40 and second front support element 42. Rear support element 38 further has means to protect a lens 22 of camera 12, which is cover 90. Cover 90 is mounted at a distal end 92 of rear support element 38. Lens 22 of camera 12 faces in the direction of arrow 92, which is the direction of rotation about second axis 32 from first front support element 40 and second front support element 42 to rear support element 38 of support frame 18. Cover 90 fitably receives lens 22 of camera 12. Cover 90 has a raised portion 95 sized to be accommodated by lens 22 of camera 12. Support frame 14, in a third mode of the preferred embodiment of the present invention, releasably holds and protects camera 12 during storage.

FIG. 3 is a detailed front view of the camera clip invention. FIG. 3 shows first front support element 40 and second front support element 42 being spaced a distance apart by a distance 94. Camera 12 further has a housing 20 which may be spherical in shape in the preferred embodiment. Housing 20 has a diameter shown as distance 96, wherein the preferred embodiment, distance 96 is greater than distance 94. When camera 12 is rotated about the second axis 32 in the direction towards rear support element 38 in the direction of arrow 92 so that housing 20 passes between first front support element 40 and second front support element 42, first front support element 40 and second front support element 42 resiliently and outwardly flex to accommodate passage of housing 20. Housing 20 is releasably held once passing between first front support element 40 and second front support element 42 by rear support element 38 engaging housing 20 at lens 22 and distal end 41 of first front support element 40 and distal end 43 of second front support element 42 slidably and fitably engaging first indentation 25 and second indentation 27 respectively of housing 20 at housing backside 24. When housing 20 is releasably held, first front support element 40 and second front support element 42 resiliently urge housing 20 towards rear support element 38 so that lens 22 of camera 12 is fitably received into cover 90.

Having thus described the preferred embodiments of the present invention, those of skill in the art will readily appreciate that yet other embodiments may be made and used within the scope of the claims hereto attached.

What is claimed:

1. Apparatus for supporting a camera, having a lens, on any generally horizontal, substantially planar surface and on an object having a first surface and a second surface and an edge intersecting the first surface and the second surface, comprising:

- a. a hinge member adapted to be rotatably attached to the camera, said camera, when the hinge member is so attached, rotating, about a first axis of rotation, relative to said hinge member; and
- b. a support frame rotatably attached to said hinge member and configured to support said hinge member on the surface and the object, said hinge member rotating about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to the first surface when said hinge member is supported on the object, said support frame having a first disposition positioned on said generally horizontal, substantially

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planar surface, and said support frame having a second disposition attached to the object when said first surface and said second surface are inclined from a generally horizontal orientation, the camera being maintained adjacent said edge in said second disposition of said support frame. 5

2. Apparatus according to claim 1 wherein the support frame comprises a first portion and a second portion, the support frame being in the first disposition on the generally horizontal, substantially planar surface when distal extremities of said first portion and said second portion are engaging the generally horizontal, substantially planar surface, and the support frame being in the second disposition on the object when said first portion is engaging the first surface and said second portion is engaging the second surface, said first portion and said second portion in combination maintaining the camera adjacent the edge. 10 15

3. Apparatus according to claim 2 wherein the support frame includes a cover adapted to protect the camera lens when the camera is rotated about the second axis until the camera is between the first portion and the second portion. 20

4. Apparatus according to claim 3 wherein the first portion of the support frame further includes said cover, said cover being mounted at the distal end of the first portion and adapted the lens of the camera. 25

5. Apparatus according to claim 2 wherein the support frame is in the first disposition when the first portion and the second portion engage the generally horizontal, substantially planar surface at three or more locations in a common plane, thereby preventing rotation of the support frame relative to the generally horizontal, substantially planar surface in any direction. 30

6. Apparatus according to claim 2 wherein the support frame is in the second disposition when a first distance from the edge to a location where the first portion engages the first surface is greater than a second distance from the edge to a location where the second portion engages the second surface, thus preventing rotation of the support frame. 35

7. Apparatus according to claim 1 wherein the object is a display screen for a laptop computer, and the second surface is the front of the display screen and the first surface is the back of the display screen. 40

8. Apparatus according to claim 1 wherein the hinge member includes a body having a proximal and a distal end, a pivot element at said proximal end of said body adapted to rotatably attach the camera to the body so that the camera rotates about the first axis relative to the body, and a hinge element at said distal end of said body hingedly attaching said body to the support frame so that said body rotates, about the second axis, relative to the support frame. 45 50

9. Apparatus according to claim 8 wherein the pivot element has a bore along the first axis of rotation to receive an electrical wiring harness and pass said wiring harness to the camera.

10. Apparatus for supporting a camera, having a housing and a lens, on any generally horizontal, substantially planar surface and on an object having a first surface and a second surface, and an edge intersecting the first surface and the second surface, comprising: 55

- a. a hinge member adapted to be rotatably attached to the camera, said camera, when the hinge member is so attached, rotating, about a first axis of rotation relative to said hinge member; and 60
- b. a support frame rotatably attached to said hinge member and configured to support said hinge member on the surface and the object, said hinge member rotating about a second axis of rotation relative to said support 65

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frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to the first surface when said hinge member is supported on the object, the support frame having a rear support element and a first and a second front support element, said support frame having a first disposition positioned on said generally horizontal, substantially planar surface when said rear support element and said first and second front support elements are engaging said generally horizontal, substantially planar surface, said support frame having a second disposition attached to the object when the first surface is inclined from a substantially horizontal position so that an uppermost extremity of the object is the edge, the support frame being maintained in said second disposition by said rear support element engaging said first surface and said first and second front support elements engaging the second surface, said rear support element and said first and second front support elements in combination preventing rotation of the support frame.

11. Apparatus according to claim 10 wherein the support frame adapted to protect the camera when the camera is rotated about the second axis towards the rear support element of the support frame until the camera is between the rear support element and the first and second front support elements, and is releasably held between the rear support element and the first and second front support elements. 25

12. Apparatus according to claim 11 wherein the first and second front support elements are spaced a distance apart, and wherein said distance is less than a diameter of the housing of the camera so that as the camera is being rotated about the second axis in the direction towards the rear support element, said housing passes between the first and second front support elements and the first and second front support elements resiliently flex outwardly to accommodate passage of said housing, said housing being releasably held once passing between the first and second front support elements by the rear support element engaging said housing at the lens. 30 35 40

13. Apparatus according to claim 11 wherein the first portion of the support frame further has a cover, said cover being mounted at a distal end of the rear support element and adapted to receive the lens of the camera when the camera is releasably held between the rear support element and the first and second front support elements. 45

14. Apparatus according to claim 10 wherein the support frame is in the first disposition when the rear support element and the first and second front support elements engage the generally horizontal, substantially planar surface at three or more locations in a common plane of the generally horizontal, substantially planar surface to prevent rotation of the support frame relative to the generally horizontal, substantially planar surface. 50

15. Apparatus according to claim 10 wherein the support frame is in the first disposition positioned on the generally horizontal, substantially planar surface when the rear support element and the first and second front support elements engage the generally horizontal, substantially planar surface to prevent rotation of the support frame relative to the generally horizontal, substantially planar surface. 55

16. Apparatus according to claim 10 wherein support frame is in the second disposition when a first distance from the edge to a location where the rear support element engages the first surface is greater than a second distance from the edge to a location where the first and second front support elements engage the second surface, the first dis-

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tance being greater than the second distance thus preventing rotation of the support frame.

17. Apparatus according to claim 10 wherein the hinge member includes a body having a proximal and a distal end, a pivot element at said proximal end of said body adapted to rotatably attach the camera to the body so that the camera rotates about the first axis relative to the body, and a hinge element at said distal end of said body hingedly attaching said body to the support frame so that said body rotates about the second axis relative to the support frame.

18. Apparatus according to claim 17 wherein the pivot element has a bore along the first axis of rotation to receive said electrical wiring harness and pass said wiring harness to the camera.

19. A camera clip for supporting a camera on a laptop computer, the laptop computer having a display screen which can be inclined from a generally horizontal position, an uppermost portion of the display screen defining an edge, comprising:

a. a hinge member adapted to be rotatably attached to the camera, said camera rotating about a first axis of rotation relative to said hinge member;

and

b. a support frame hingedly attached to said hinge member to engagingly support said hinge member on the display screen, said hinge member rotating over a second axis of rotation relative to said support frame, the camera being maintained adjacent the edge, rotation of said support frame being prevented along an axis substantially parallel to said second axis where said second axis is substantially parallel to said edge.

20. Apparatus for supporting a camera having a lens on a substantially level surface, comprising:

a. a hinge member adapted to be rotatably attached to the camera, the camera rotating about a first axis of rotation relative to said hinge member; and

b. a support frame rotatably attached to said hinge member and configured to support said hinge member on a generally horizontal, substantially planar surface, said hinge member rotating about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to the generally horizontal, substantially planar surface when said hinge member is supported on the generally horizontal, substantially planar surface, said

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support frame having a first portion and a second portion wherein said support frame protects the camera when said hinge member is not supported on the generally horizontal, substantially planar surface, and when the camera is rotated around said second axis in a direction from said second portion towards said first portion of said support frame until the camera is between said first portion and said second portion and is releasably held between said first portion and said second portion.

21. Apparatus for supporting a camera, having a lens, on an object having a first surface and a second surface, wherein a thickness measured between the first surface and the second surface defines an edge therebetween, comprising:


a. a hinge member adapted to be rotatably attached to the camera, said camera, when the hinge member is so adapted, rotating about a first axis of rotation relative to said hinge member; and

b. a support frame rotatably attached to said hinge member and configured to support said hinge member on the object, said hinge member rotating about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to the first surface when said hinge member is supported by said support frame on the object, said support frame supporting said hinge member on the object when said first surface is inclined from a substantially horizontal position, the camera being maintained adjacent the edge when an uppermost extremity of the object is the edge, rotation of said support frame being precluded about an axis substantially parallel to said second axis, said second axis being substantially parallel to said edge, said support frame having a first portion and a second portion wherein said support frame releasably holds and protects the camera when said hinge member is not supported by said support frame on the object and the camera is rotated around said second axis in a direction from said second portion towards said first portion of said support frame until the camera is between said first portion and said second portion and is releasably held between said first portion and said second portion.

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Abstract of the Disclosure

A clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported.

5 The clip provides two axis of rotation to position the camera to any desired viewing angle. The clip may be rotated to a first position to support the camera on a surface of a table or desk. The clip may be rotated to a second position to support the camera on the display screen of a laptop computer.

10 When the camera is not being supported in the first position or the second position, the camera may be rotated to be releasably held by the clip to protect the camera and lens during storage.

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CAMERA CLIP

Field of the Invention

This invention relates to a clip for holding a camera. More particularly it relates to a clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported.

Background of the Invention

With portable cameras, it is desirable to have an apparatus which can support the camera in any number of desired configurations. The apparatus must easily accommodate repositioning the camera to new orientations during use, and must be easily transportable. This is especially true when using the camera with a portable computer, such as a laptop computer. With increasing improvements in technology, both the laptop computer and camera have become smaller over time, emphasizing the need for a compatible camera support apparatus. The camera support apparatus must be versatile, light in weight, and be easily transportable to accommodate the new camera and laptop designs, and must desirably facilitate easy and safe storage of the camera. Often times portable computers are stored in carry bags which may be fully loaded with other hardware devices, such as disk drives or printers, as well as with personal effects, making for cramped storage conditions. The camera support apparatus must desirably protect the camera from damage during transport under these cramped storage conditions to avoid the necessity

for separate storage means in order to maintain camera portability.

In the past, camera support apparatus were not easily transportable. Often times these apparatus utilized designs which incorporated a tripod approach, or which used one or more telescoping arms to support the camera. These designs attempted to support the camera during use, and then collapse to a smaller size to facilitate storage or transportation. While these designs were transportable, often times even the collapsed size of the prior art camera support apparatus could not be easily accommodated by a laptop computer bag. These prior art apparatus also did not provide means to protect the camera during transport, and if constructed of hard, exposed materials, tended to damage the cameras.

Another problem with prior art camera support apparatus was that they could not easily accommodate the variety of applications desired for portable cameras. These applications ranged from supporting the camera on the surface of a desk or table to supporting the camera on the upright display screen of a laptop computer. With the prior art, often times more than one camera support apparatus was necessary in order to support the desired range of applications. This unfortunately adversely impacted portability of the camera.

Thus, a desire was created within the industry for a small, easily transportable camera support apparatus for supporting the camera on both horizontal surfaces, such as the

surface of a desk or table, and vertical surfaces, such as the display screen of a laptop computer, and to protect the camera during storage and transport.

Summary of the Invention

5 Accordingly, it is an object of the invention to provide a clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported. The clip provides two axis of rotation to position the camera to any
10 desired viewing angle. The clip may be rotated to a first position to support the camera on a surface of a table or desk. The clip may be rotated to a second position to support the camera on a display screen of a laptop computer. When the camera is not being supported in the first position or the
15 second position, the camera may be rotated to be releasably held by the clip to protect the camera and lens during storage.

 In a preferred embodiment of the present invention, an apparatus is provided for supporting a camera on an object
20 where the apparatus comprises a hinge member and a support frame. The hinge member is rotatably attached to the camera where the camera rotates over a first axis of rotation relative to the hinge member. A support frame is hingedly attached to the hinge member to engagingly support the hinge
25 member on the object, where the hinge member rotates over a second axis of rotation relative to the support frame. The

first axis of rotation is perpendicular to the second axis of rotation, and the second axis of rotation is substantially parallel to a first surface of the object when the hinge member is engagingly supported on the object. In the preferred embodiment, the support frame further has a rear support element and first and second front support elements. In the preferred embodiment, the rear support element and the first and second front support elements support the camera in the first position on the first surface when the rear support element and the first and second front support elements are engaging the first surface when the first surface is substantially level. In the preferred embodiment, the rear support element and the first and second front support elements engage the first surface at three locations in a plane of the first surface to prevent rotation of the support frame relative to the first surface in any direction within the plane of the first surface. In the preferred embodiment, when the support frame is in the first position, the object may be the top of a table where the first surface is a top surface of the table. The object may also be a desk top where the first surface is a top surface of the desk.

In the preferred embodiment, the rear support element and the first and second front support elements support the camera in a second position on the first surface adjacent an edge when the first surface is inclined from the substantially level position. The object has a second surface wherein a

thickness between the first surface and the second surface defines an edge therebetween. The camera is maintained adjacent to the edge in the second position where the uppermost portion of the object is the edge. The rear support element engages a first surface and the first and second support elements engage the edge and the second surface. The rear support element and the first and second front support elements, in combination, maintain the camera adjacent the edge and prevent rotation of the support frame along an axis substantially parallel to the second axis where the second axis is substantially parallel to the edge. In a preferred embodiment, the rear support element and the first and second front support elements support the camera in the second position on the first surface adjacent the edge when a first distance from the edge to the position where the rear support element engages the first surface is greater than a second distance from the edge to the position where the first and second front support elements engage the second surface. A center of gravity of the camera and the hinge member being adjacent and external to the first surface in combination with the first distance being greater than the second distance prevents rotation of the support frame along the axis substantially parallel to the second axis of rotation. In the preferred embodiment, when the support frame is in the second position, the object may be a display screen for a laptop computer, where the second surface is the front of the display

screen and the first surface is the back of the display screen.

In the preferred embodiment, the support frame has means to releasably hold and protect the camera during storage. The camera may be rotated about the second axis in a direction from the first and second front support elements towards the rear support element of the support frame until the camera is in a position between and is releasably held by the rear support element and the first and second front support elements. In the preferred embodiment, the rear support element has means to protect a lens of the camera which is a cover mounted at a distal end of the rear support element. The lens of the camera faces a direction of rotation about the second axis from the first and second front support elements to the rear support element of the support frame to allow the lens of the camera to be fitably received into the cover when the camera is releasably held between the rear support element and the first and second front support elements.

In the preferred embodiment, the first and second front support elements are spaced a distance apart at a distance less than a diameter of a housing of the camera, where the camera is rotated about the second axis in the direction towards the rear support element so that the housing passes between the first and second front support elements. The first and second front support elements resiliently and outwardly flex to accommodate passage of the housing. The

housing is releasably held after passing between the first and second front support elements by the rear support element engaging the housing at the lens, where the first and second front support elements engage the housing backside at a first indentation and a second indentation respectively to resiliently urge the housing towards the rear support element.

In the preferred embodiment, the hinge member is further comprised of a body having a proximal and a distal end where a pivot element at the proximal end of the body rotatably attaches the camera to the body so that the camera rotates about the first axis relative to the body. A hinge element at the distal end of the body hingedly attaches the body to the support frame so that the body rotates about the second axis relative to the support frame. In the preferred embodiment, the camera has an electrical wiring harness to couple from an interior to an exterior of the camera, and the pivot element has a bore parallel to the first axis of rotation to receive the electrical wiring harness to pass the wiring harness from the interior to the exterior of the camera.

Brief Description of the Drawings

Other objects of the present invention and many of the attendant advantages of the present invention will be readily appreciated as the same becomes better understood by reference to the following detailed description when considered in connection with the accompanying drawings, in which like reference numerals designate like parts throughout the figures

thereof and wherein:

FIG. 1 is a perspective view of the "Camera Clip" invention;

FIG. 2 is a side view showing a first mode of a preferred embodiment of the present invention;

FIG. 3 is a detailed front view of the "Camera Clip" invention;

FIG. 4 is a side view showing a second mode of the preferred embodiment of the present invention;

FIG. 5 is a side view showing a third mode of the preferred embodiment of the present invention;

FIG. 6 is a detailed side view showing the third mode wherein the lens of the camera is being fitably received by the cover; and

FIG. 7 is a front view showing the third mode of the preferred embodiment of the present invention.

Detailed Description of the Preferred Embodiments

Referring now to the drawings, wherein like reference numerals refer to like elements throughout the several views, Fig. 1 is a perspective view of the camera clip invention. Fig. 1 shows generally a camera apparatus 10 having a camera 12 and a camera clip 14. Camera clip 14 is further comprised of a hinge member 16 and a support frame 18. Camera 12 is comprised of housing 20 and lens 22, and has a housing backside 24 which is the side of the housing opposite of lens 22. Hinge member 16 is rotatably attached to camera 12, where

camera 12 rotates over a first axis 26 in a direction shown by arrow 28 relative to hinge member 16. Support frame 18 is hingedly attached to hinge member 16 to engagingly support hinge member 16 on an object 30 (see also, Fig. 2). Hinge member 16 rotates over a second axis 32 in the direction shown by arrow 34 relative to support frame 18. First axis 26 is perpendicular to second axis 32. Second axis 32 is substantially parallel to a first surface 36 when hinge member 16 is engagingly supported on object 30 (see also, Fig. 2). Support frame 18 has a first portion consisting of first support element 38 and a second portion consisting of a first front support element 40 and a second front support element 42. Housing 20 has a first indentation 25 and a second indentation 27 to slidably and fittably receive distal end 41 of first front support element 40 and distal end 43 of second front support element 42 when first front support element 40 and second front support element 42 are rotated in the direction of arrow 34 to engage housing backside 24.

Fig. 2 is a side view showing a first mode of a preferred embodiment of the present invention. Rear support element 38, first front support element 40 and second front support element 42 support camera 12 in the first position 44, on the first surface 36, when rear support element 38, first front support element 40 and second front support element 42 are engaging first surface 36 and first surface 36 is substantially level. In the first position 44, camera 12 may

be pivoted upon support frame 18 from a position 46 to a position 48. It is recognized that camera 12 may be pivoted to any number of positions about second axis 32 in the direction shown by arrow 34. In the preferred embodiment, rear support element 38, first front support element 40 and second front support element 42 support the camera in first position 44, on first surface 36, when rear support element 38, first front support element 40 and second front support element 42 engage first surface 36 at three locations in a plane 50 of first surface 36. Engagement of first surface 36 at three or more locations prevents rotation of support frame 18 relative to first surface 36 in any direction within plane 50 of first surface 36. It is understood that in the preferred embodiment, rear support element 38, first front support element 40 and second front support element 42 may utilize any number of desired geometries to engage first surface 36 to prevent rotation of support frame 18 relative to first surface 36 in any direction within plane 50 of first surface 36. In the preferred embodiment, when support frame 18 is in the first position 44, the object may be a top of a table and first surface 36 may be a top surface of the table. Likewise, object 30 may be a desk top, where first surface 36 is a top surface of the desk.

Fig. 4 is a side view showing a second mode of the preferred embodiment of the present invention. The second mode occurs when rear support element 38, first front support

element 40 and second front support element 42 support camera
 12 in a second position 52 on a first surface 54 adjacent an
 edge 56. Second position 52 corresponds to first surface 54
 being inclined from the substantially level position (see
 5 also, Fig. 2). In Fig. 4, object 58 has a second surface 60,
 where a thickness d1 between first surface 54 and second
 surface 60 defines the edge 56 therebetween. Camera 12 is
 maintained adjacent edge 56 in second position 52 when the
 uppermost portion of object 58 is edge 56. Rear support
 10 element 38 engages first surface 54, and first front support
 element 40 and second front support element 42 engage edge 56
 and second surface 60. Rear support element 38, first front
 support element 40 and second front support element 42, in
 combination, maintain camera 12 adjacent edge 56 and prevent
 15 rotation of support frame 18 along an axis substantially
 parallel to second axis 32, where second axis 32 is
 substantially parallel to edge 56. Rear support element 38,
 first front support element 40 and second front support
 element 42 support camera 12 in second position 52 on the
 20 first surface 54 adjacent edge 56 when a first distance 64
 measured between edge 56 and position 66 is greater than a
 second distance 68. Second distance 68 is measured between
 edge 56 and position 70, where first front support element 40
 and second front support element 42 engage second surface 60.
 25 The center of gravity shown in the direction of arrow 72 of
 camera 12 and hinge member 16 being adjacent and external to

first surface 54 in combination with first distance 64 being greater than second distance 68 prevent rotation in the direction of arrow 62 of support frame 18. In the preferred embodiment, object 58 may be a display screen for a laptop computer when support frame 18 is in second position 52, where second surface 60 is the front of the display screen and first surface 54 is the back of the display screen. Fig. 4 shows hinge member 16 comprised of a body 74 having a proximal end 76 and a distal end 78. A pivot element 80 at proximal end 76 of body 74 rotatably attaches camera 12 to body 74 so the camera may rotate about first axis 26 relative to body 74. A hinge element 82 at distal end 78 of body 74 hingedly attaches body 74 to support frame 18 so body 74 rotates about second axis 32 relative to support frame 18. Fig. 4 further shows camera 12 having an electrical wiring harness 84 to couple from an interior 86 to an exterior 88 of camera 12. Pivot element 80 has a bore 90 parallel to first axis 26 to receive electrical wiring harness 84 to pass wiring harness 84 from interior 86 to exterior 88 of camera 12. While the embodiments shown in the drawing figures and discussed herein illustrate a wiring harness 84 passing through a bore 90 parallel to first axis 26, it will be understood that other embodiments are contemplated. For example, wiring harness could enter body 74 at a location angularly spaced upward from bore 90.

Figs. 5-7 show various perspectives of a third mode of

the preferred embodiment of the present invention. Fig. 5 is a side view, Fig. 6 is a detailed side view showing the lens of the camera being fitably received by the cover, and Fig. 7 is a front view. The third mode of the preferred embodiment of the present invention is shown when camera 12 is rotated about second axis 32 along the direction shown by arrow 34 in a direction from the first front support element 40 and the second front support element 42 towards rear support element 38 of support frame 18. This rotation is continued in the third mode until camera 12 is in a position between rear support element 38 and first front support element 40 and second front support element 42. In this position, distal end 41 of first support element 40 and distal end 43 of second front support element 42 slidably and fitably engage first indentation 25 and second indentation 27 respectively of housing 20 at housing backside 24. Camera 12 is then releasably held between rear support element 38 and first front support element 40 and second front support element 42. Rear support element 38 further has means to protect a lens 22 of camera 12, which is cover 90. Cover 90 is mounted at a distal end 92 of rear support element 38. Lens 22 of camera 12 faces in the direction of arrow 92, which is the direction of rotation about second axis 32 from first front support element 40 and second front support element 42 to rear support element 38 of support frame 18. Cover 90 fitably receives lens 22 of camera 12. Cover 90 has a raised portion 95 sized

to be accommodated by lens 22 of camera 12. Support frame 14, in a third mode of the preferred embodiment of the present invention, releasably holds and protects camera 12 during storage.

5 Fig. 3 is a detailed front view of the camera clip invention. Fig. 3 shows first front support element 40 and second front support element 42 being spaced a distance apart by a distance 94. Camera 12 further has a housing 20 which may be spherical in shape in the preferred embodiment.
10 Housing 20 has a diameter shown as distance 96, wherein the preferred embodiment, distance 96 is greater than distance 94. When camera 12 is rotated about the second axis 32 in the direction towards rear support element 38 in the direction of arrow 92 so that housing 20 passes between first front support
15 element 40 and second front support element 42, first front support element 40 and second front support element 42 resiliently and outwardly flex to accommodate passage of housing 20. Housing 20 is releasably held once passing between first front support element 40 and second front
20 support element 42 by rear support element 38 engaging housing 20 at lens 22 and distal end 41 of first front support element 40 and distal end 43 of second front support element 42 slidably and fittably engaging first indentation 25 and second indentation 27 respectively of housing 20 at housing backside
25 24. When housing 20 is releasably held, first front support element 40 and second front support element 42 resiliently

urge housing 20 towards rear support element 38 so that lens
22 of camera 12 is fitably received into cover 90.

Having thus described the preferred embodiments of the
present invention, those of skill in the art will readily
5 appreciate that yet other embodiments may be made and used
within the scope of the claims hereto attached.

What is Claimed:

1. An apparatus for supporting a camera on an object, comprising:
- a. a hinge member rotatably attached to the camera, said camera rotating over a first axis of rotation relative to said hinge member; and
 - b. a support frame hingedly attached to said hinge member to engagingly support said hinge member on the object, said hinge member rotating over a second axis of rotation relative to said support frame, said first axis of rotation being perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to a first surface when said hinge member is engagingly supported on the object, said support frame supporting said camera in a first position on the object when said first surface is substantially level, said support frame supporting the camera in a second position on the object when said first surface is inclined from said substantially level position, the object having a second surface wherein a thickness between the first surface and said second surface defines an edge therebetween, the camera being maintained adjacent said edge in said second position when the uppermost portion of the object is the edge, rotation of said support

frame being prevented along an axis substantially parallel to said second axis, said second axis being substantially parallel to said edge.

2. An apparatus according to claim 1 wherein the support frame comprises a first portion and a second portion, said first portion and said second portion supporting the camera in the first position on the first surface when said first portion and said second portion are engaging the first surface when the first surface is substantially level, said first portion and said second portion supporting the camera in the second position on the first surface adjacent the edge when said first portion is engaging the first surface and said second portion is engaging the edge and the second surface, said first portion and said second portion in combination maintaining the camera adjacent the edge and preventing rotation of the support frame along the axis substantially parallel to the second axis.

3. An apparatus according to claim 2 wherein the support frame has means to releasably hold and protect the camera during storage.

4. An apparatus according to claim 3 wherein the means to releasably hold and protect the camera comprises the

camera being rotated around the second axis in a direction from the second portion towards the first portion of the support frame until the camera is in a position between the first portion and the second portion and is releasably held between the first portion and the second portion, the first portion having means to protect a lens of the camera.

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5. An apparatus according to claim 4 wherein the means to protect the lens of the camera is a cover mounted at the distal end of the first portion, the lens of the camera facing in the direction of rotation about the second axis from the second portion to the first portion of the support frame to allow the lens of the camera to be fitably received into said cover when the camera is releasably held between the first portion and the second portion.
6. An apparatus according to claim 2 wherein the first portion and the second portion support the camera in the first position on the first surface when the first portion and the second portion engage the first surface at three or more locations in a plane of the first surface to prevent rotation of the support frame relative to the first surface in any direction within said plane of the first surface.

7. An apparatus according to claim 2 wherein the first portion and the second portion support the camera in the first position on the first surface when the first portion and the second portion engage the first surface to prevent rotation of the support frame relative to the first surface in any direction within a plane of the first surface.

8. An apparatus according to claim 2 wherein the first portion and the second portion support the camera in the second position on the first surface adjacent the edge when a first distance from the edge to the position where the first portion engages the first surface is greater than a second distance from the edge to the position where the second portion engages the second surface, a center of gravity of the camera and said hinge member being adjacent and external to the first surface in combination with the first distance being greater than the second distance preventing rotation of the support frame along an axis substantially parallel to the second axis of rotation.

9. An apparatus according to claim 1 wherein the object is a top of a table when the support frame is in the first position, the first surface being a top surface of the table.

10. An apparatus according to claim 1 wherein the object is a desk top when the support frame is in the first position, the first surface being a top surface of the desk.

11. An apparatus according to claim 1 wherein the object is a display screen for a laptop computer when the support frame is in the second position, the second surface being the front of the display screen and the first surface being the back of the display screen.

12. An apparatus according to claim 1 wherein the hinge member is comprised of a body having a proximal and a distal end, a pivot element at said proximal end of said body rotatably attaching the camera to the body so that the camera rotates about the first axis relative to the body, a hinge element at said distal end of said body hingedly attaching said body to the support frame so that said body rotates about the second axis relative to the support frame.

13. An apparatus according to claim 12 wherein the camera has an electrical wiring harness to couple from an interior to an exterior, the pivot element having a bore parallel to the first axis of rotation to receive said electrical wiring harness to pass said wiring harness from said

interior to said exterior of the camera.

14. An apparatus for supporting a camera on an object, comprising:
- a. a hinge member rotatably attached to the camera, said camera rotating over a first axis of rotation relative to said hinge member; and
 - b. a support frame hingedly attached to said hinge member to engagingly support said hinge member on the object, said hinge member rotating over a second axis of rotation relative to said support frame, said first axis of rotation being perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to a first surface when said hinge member is engagingly supported on the object, the support frame having a rear support element and a first and second front support element, said rear support element and said first and said second front support elements supporting the camera in the first position on said first surface when said rear support element and said first and second front support elements are engaging said first surface when said first surface is substantially level, said rear support element and said first and said second front support elements supporting the camera

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in a second position on said first surface adjacent an edge when said first surface is inclined from said substantially level position, the object having a second surface wherein a thickness between said first surface and said second surface defines said edge therebetween, the camera being maintained adjacent said edge in said second position when the uppermost portion of the object is the edge, said rear support element engaging said first surface and said first and second front support elements engaging the edge and the second surface, said rear support element and said first and second front support elements in combination maintaining the camera adjacent the edge and preventing rotation of the support frame along an axis substantially parallel to the second axis, said second axis being substantially parallel to said edge.

15. An apparatus according to claim 14 wherein the support frame has means to releasably hold and protect the camera during storage.

16. An apparatus according to claim 15 wherein the means to releasably hold and protect the camera comprises the camera being rotated around the second axis in a direction from the first and second front support

elements towards the rear support element of the support frame until the camera is in a position between the rear support element and the first and second front support elements and is releasably held between the rear support element and the first and second front support elements, the rear support element having means to protect a lens of the camera.

17. An apparatus according to claim 16 wherein the first and second front support elements are spaced a distance apart at a distance less than a diameter of a housing of the camera, the camera being rotated around the second axis in the direction towards the rear support element so that said housing passes between the first and second front support elements, the first and second front support elements resiliently and outwardly flexing to accommodate passage of said housing, said housing being releasably held once passing between the first and second front support elements by the rear support element engaging said housing at the lens, the first and second front support elements engaging said housing backside to resiliently urge said housing towards the rear support element.

18. An apparatus according to claim 16 wherein the means to protect the lens of the camera is a cover mounted at the

distal end of the rear support element, the lens of the camera facing in the direction of rotation about the second axis from the first and second front support elements to the rear support element of the support frame to allow the lens of the camera to be fitably received into said cover when the camera is releasably held between the rear support element and the first and second front support elements.

19. An apparatus according to claim 14 wherein the rear support element and the first and second front support elements support the camera in the first position on the first surface when the rear support element and the first and second front support elements engage the first surface at three or more locations in a plane of the first surface to prevent rotation of the support frame relative to the first surface in any direction within said plane of the first surface.

20. An apparatus according to claim 14 wherein the rear support element and the first and second front support elements support the camera in the first position on the first surface when the rear support element and the first and second front support elements engage the first surface to prevent rotation of the support frame relative to the first surface in any direction within a plane of

the first surface.

21. An apparatus according to claim 14 wherein the rear support element and the first and second front support elements support the camera in the second position on the first surface adjacent the edge when a first distance from the edge to the position where the rear support element engages the first surface is greater than a second distance from the edge to the position where the first and second front support elements engage the second surface, a center of gravity of the camera and said hinge member being adjacent and external to the first surface in combination with the first distance being greater than the second distance preventing rotation of the support frame along an axis substantially parallel to the second axis of rotation.

22. An apparatus according to claim 14 wherein the object is a top of a table when the support frame is in the first position, the first surface being a top surface of the table.

23. An apparatus according to claim 14 wherein the object is a desk top when the support frame is in the first position, the first surface being a top surface of the

desk

24. An apparatus according to claim 14 wherein the object is a display screen for a laptop computer when the support frame is in the second position, the second surface being the front of the display screen and the first surface being the back of the display screen.

Part 4
25. An apparatus according to claim 14 wherein the hinge member is comprised of a body having a proximal and a distal end, a pivot element at said proximal end of said body rotatably attaching the camera to the body so that the camera rotates about the first axis relative to the body, a hinge element at said distal end of said body hingedly attaching said body to the support frame so that said body rotates about the second axis relative to the support frame.

26. An apparatus according to claim 25 wherein the camera has an electrical wiring harness to couple from an interior to an exterior, the pivot element having a bore parallel to the first axis of rotation to receive said electrical wiring harness to pass said wiring harness from said interior to said exterior of the camera.

also a7

COMBINED DECLARATION/POWER OF ATTORNEY FOR PATENT APPLICATION

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled CAMERA CLIP, the specification of which (check one)

XX is attached hereto

— was filed on _____
as U.S. Application
Serial No. _____

— and was amended on (if
applicable) _____

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of Federal Regulations, §1.56(a).

I hereby claim foreign priority benefit(s) under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate listed below and have also identified below any foreign application(s) for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign Application(s)			Priority Claimed	
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	YES	NO
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	YES	NO
_____ (Number)	_____ (Country)	_____ (Day/Month/Year Filed)	YES	NO

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which

occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
--------------	---------------	---

(Serial No.)	(Filing Date)	(Status-patented, pending, abandoned)
--------------	---------------	---------------------------------------

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

John L. Rooney, Reg. No. 28,898;
 Lawrence M. Nawrocki, Reg. No. 29,333;
 Wayne A. Sivertson, Reg. No. 25,645;
 David M. Crompton, Reg. No. 36,772;
 Glenn M. Seager, Reg. No. 36,926;
 Steven E. Dicke, Reg. No. 38,431;
 Brian N. Tufte, Reg. No. 38,638;
 Craig F. Taylor, Reg. No. 40,199;
 Donald A. Jacobson, Reg. No. 22,308; and
 Lew Schwartz, Reg. No. 22,067

Send correspondence to:

Lawrence M. Nawrocki
 NAWROCKI, ROONEY & SIVERTSON, P.A.
 Suite 401, Broadway Place East
 3433 Broadway Street Northeast
 Minneapolis, Minnesota 55413
 (612) 331-1464

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon, I further declare that I understand the content of this declaration.

Full name of sole or first inventor David E. Krekelberg
 Inventor's Signature _____ Date _____
 Residence 15604 Dawn Drive, Minnetonka, Minnesota 55345
 _____ Citizenship U.S.A.
 Post Office Address 15604 Dawn Drive
Minnetonka, Minnesota 55345

-3-

1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
 - (2) Each attorney or agent who prepares or prosecutes the application; and
 - (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.
- (d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

67137 U.S. PTO



03/07/97

Applicant or Patentee: David E. Krekelberg Attorney's Docket No.: 19139/103/101Serial or Patent No.: N/AFiled or Issued: HerewithFor: CAMERA CLIP**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) AND 1.27(c)) -- SMALL BUSINESS CONCERN**

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
☒ an official of the small business concern empowered to act
on behalf of the concern identified below:

NAME OF CONCERN IREZ Research, CorporationADDRESS OF CONCERN 15604 Dawn Drive, Minnetonka, Minnesota 55345

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled CAMERA CLIP by inventor(s) David E. Krekelberg described in

- ☒ the specification filed herewith
☐ application serial no. _____, filed _____
☐ patent no. _____, issued _____

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(b) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue

fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate.
(37 CFR 1.28(b))

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING David E. Krekelberg

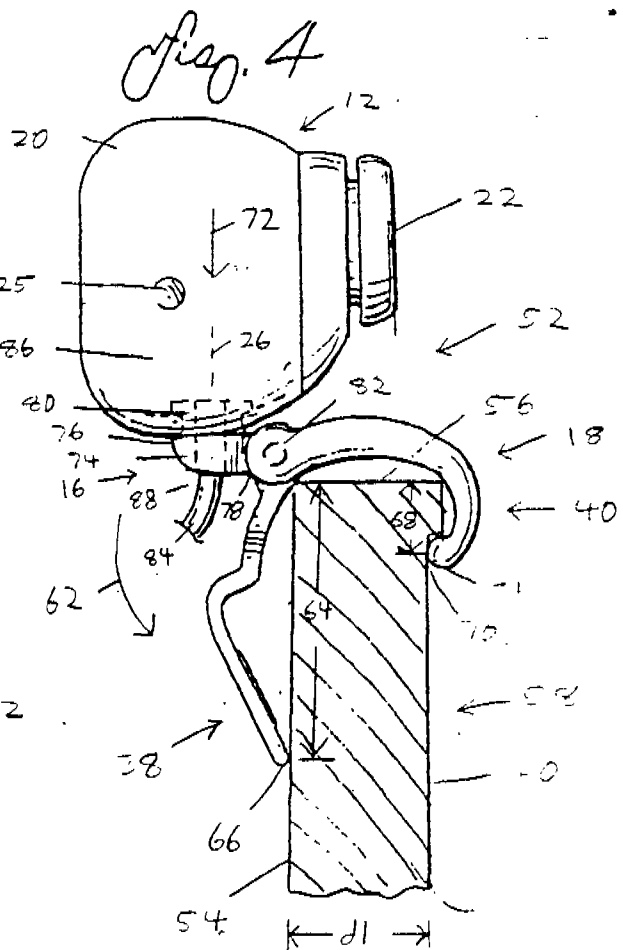
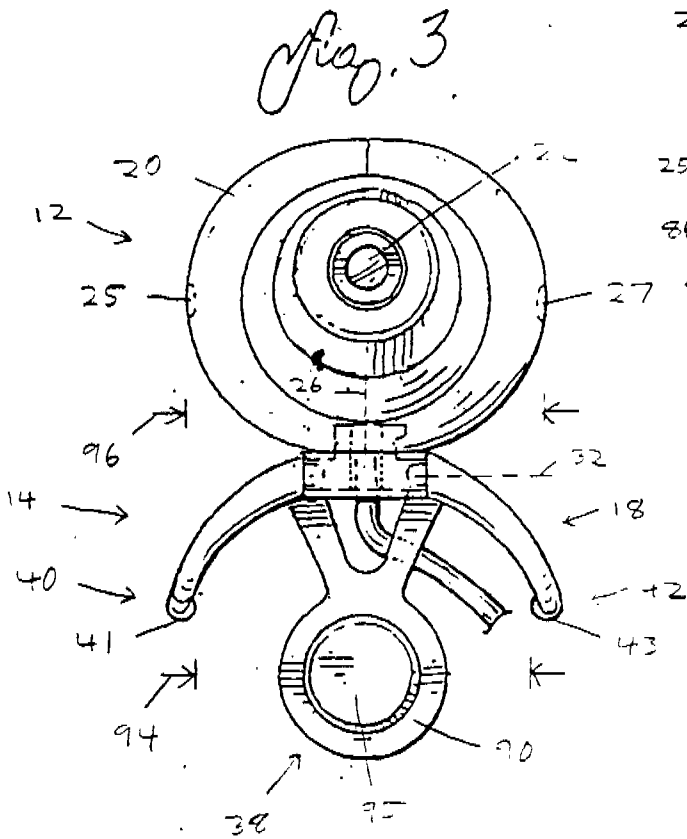
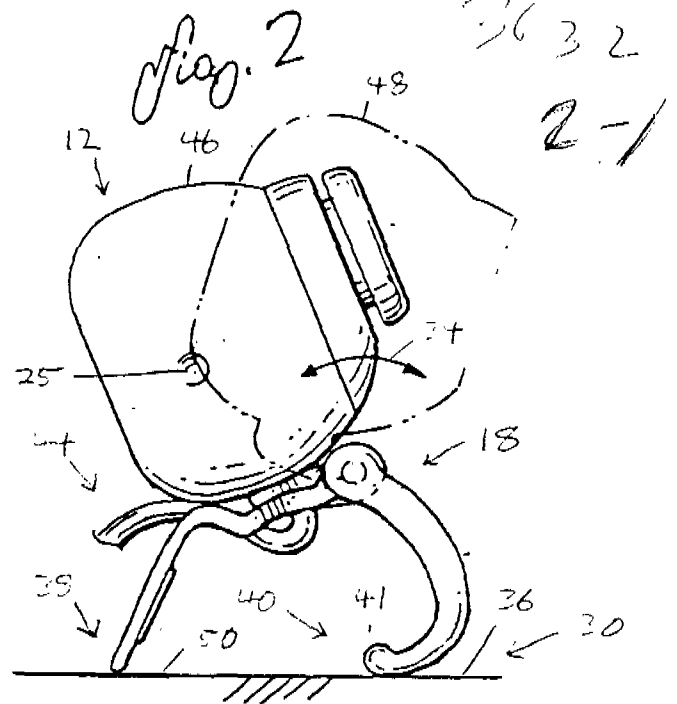
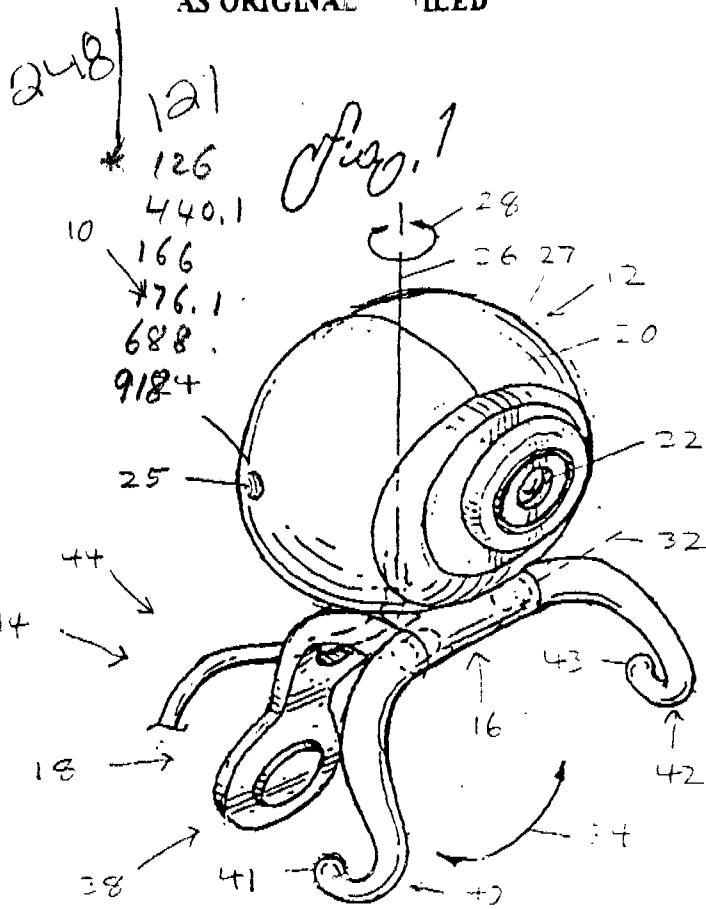
TITLE OF PERSON OTHER THAN OWNER CEO and CTO

ADDRESS OF PERSON SIGNING 15604 Dawn Drive, Minnetonka, Minnesota 55345

SIGNATURE _____ DATE _____

AS ORIGINAL FILED

08/814168



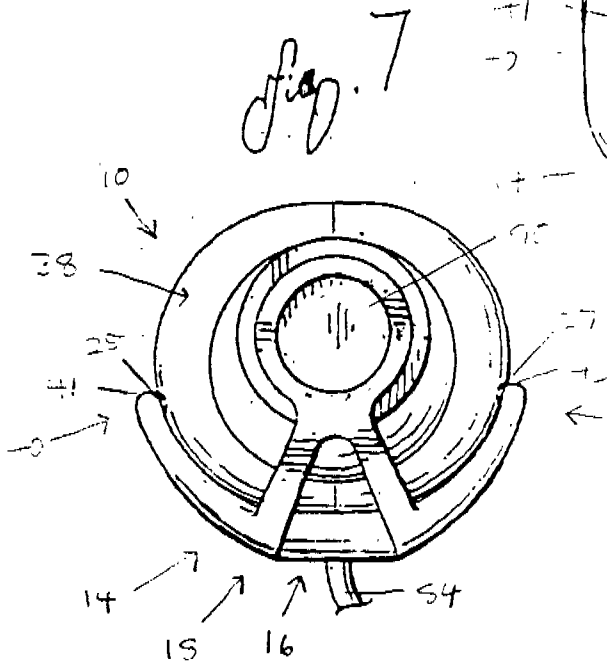
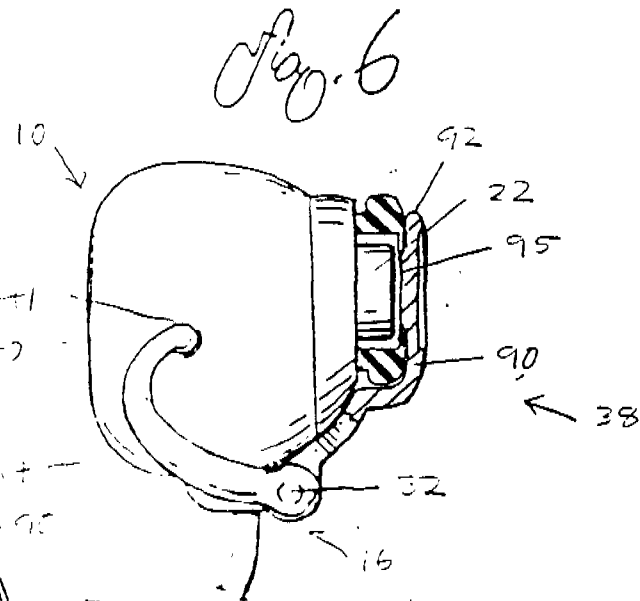
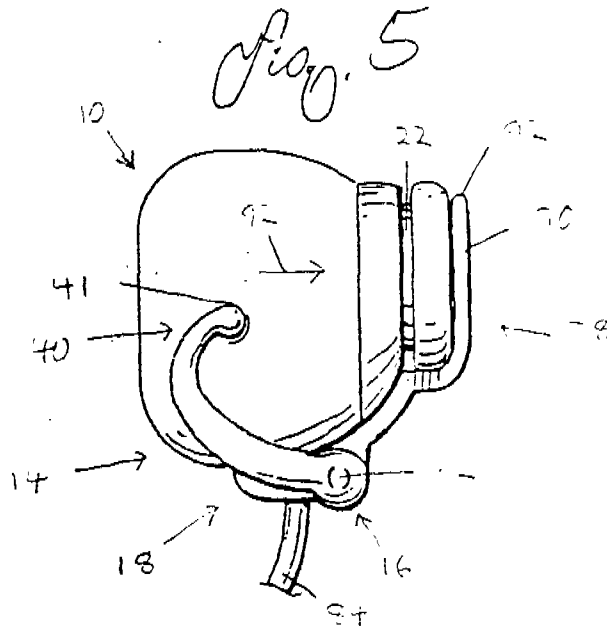
224/908

346/421-428

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425

24



TOTAL P.03

08/814168

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

1-00 David E. Krekelberg

Serial No.: N/A

Filing Date: Herewith

For: CAMERA CLIP

Docket No.: 19239/103/101

67137 U.S. PTO



03/07/97

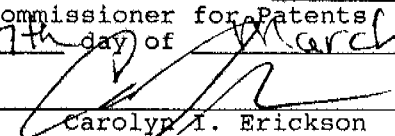
TRANSMITTAL SHEET

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

CERTIFICATE UNDER 37 C.F.R. 1.10: The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, "Express Mail Post Office to Addressee" having an Express Mail mailing label number of : EM 609 179 413 US, in an envelope address to: Assistant Commissioner for Patents, Washington, D.C., 20231 on this 7th day of March, 1997

By


Carolyn I. Erickson

We are transmitting herewith the attached Patent Application including the following:

- [XXXX] 15 sheet(s) of specification.
- [XXXX] 11 sheet(s) of claim(s).
- [XXXX] 1 sheet(s) of Abstract.
- [XXXX] 2 sheet(s) of drawings.
- [XXXX] Unexecuted Declaration and Power of Attorney.
- [XXXX] An unexecuted verified statement(s) to establish small entity status under 37 C.F.R. 1.9 and/or 1.27 is enclosed.
- [] An Assignment of the invention to iREZ Research Corporation is being filed contemporaneous with this patent application.
- [] A certified copy of a _____ application, serial no. _____, filed _____, 19____, the right of priority of which is claimed under 35 U.S.C. 119.

CLAIMS AS FILED						
	(1)	(2)	SMALL ENTITY		OTHER	
FOR:	# FILED	# EXTRA	Rate	Fee	Rate	Fee
BASIC FEE				\$385		\$770
TOTAL CLAIMS	26-20 =	6	x11=	\$ 66	x22=	\$
INDEPENDENT CLAIMS	2 -3 =	0	x40=	\$ 0	x80=	\$
() MULTIPLE DEPENDENT CLAIM PRESENTED			+130=	\$ 0	+260=	\$
TOTAL			\$451.00		\$	

*If the difference in Column (1) is less than zero, enter "0" in Column 2.

- [] Other _____
- [] Checks in the amounts of \$_____ and \$_____ are enclosed.
- [] Please charge any deficiencies or credit any overpayment in the enclosed fees to Deposit Account 14-0620.

By: _____

Lawrence M. Nawrocki

Reg. No. 29,333

NAWROCKI, ROONEY & SIVERTSON, P.A.

Suite 401, Broadway Place East

3433 Broadway Street N.E.

Minneapolis, Minnesota 55413

Telephone: (612) 331-1464

Facsimile: (612) 331-2239


**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
--------------------	---------------------	-----------------------	---------------------------

06/814,168

06/07/11

 NAWROCKI ROONEY STEVENSON
BROADWAY PLACE EAST SUITE 401
2412 BROADWAY STREET N.E.
MINNEAPOLIS MN 55415

DATE MAILED:

**NOTICE TO FILE MISSING PARTS OF APPLICATION
Filing Date Granted**

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted ALONG WITH THE PAYMENT OF A SURCHARGE for items 1 and 3-6 only of \$ 132.00 for a ☒ large entity ☐ small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.16(e). Applicant is given TWO MONTHS FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a

☒ large entity ☐ small entity (verified statement filed), is \$ 132.00.

☒ 1. The statutory basic filing fee is:

☒ missing.

☐ insufficient.

Applicant must submit \$ 110.00 to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).

☒ 2. Additional claim fees of \$ 132.00, including any multiple dependent claim fees, are required.

Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.

☐ 3. The oath or declaration:

☐ is missing.

☐ does not cover the newly submitted items.

☐ does not identify the application to which it applies.

☐ does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

☒ 4. The signature(s) to the oath or declaration is/are:

☒ missing.

☐ by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

☐ 6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.21(m)).

☐ 7. Your filing receipt was mailed in error because your check was returned without payment.

☐ 8. The application does not comply with the Sequence Rules.

See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."

☐ 9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

N. R. Green
Customer Service Center
Initial Patent Examination Division (703) 308-1202



P A T E N T

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David E. Krekelberg

Serial No.: 08/814,168

Filed: March 7, 1997

For: CAMERA CLIP

Docket No.: 19239/103/101

COMMUNICATION

Assistant Commissioner
for Patents
Washington, D.C. 20231

CERTIFICATE UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an enveloped addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on this 25th day of August, 1997

By: _____

Carelyn I. Erickson

Sir:

Applicant filed the application covered by the caption indicated above on March 7, 1997. The signature of the inventor was, however, missing on the DECLARATION. In response to the filing, the United States Patent and Trademark Office issued a NOTICE TO FILE MISSING PARTS OF APPLICATION - FILING DATE GRANTED document (FORM PTO-1533). That paper documented the fact that the filing date was granted for the application. Further, however, it documented a requirement that a properly signed Declaration in compliance with 37 CFR §1.63, identifying the application by

Application Number and Filing Date, be submitted. That paper also required that a surcharge in the amount of \$130, for a large entity, or \$65, for a small entity, be submitted. It documented a requirement that the statutory basic filing fee be paid, and that large entity filing fees in the amount of \$770 be submitted. Also, it documented that additional claim fees in the amount of \$132.00 for a large entity, including any required multiple dependent claim fees be submitted.

In view of the filing of small entity affidavit contemporaneous with this document, and the other documents filed with this package, the surcharge is in the amount of \$65.00, the filing fees are in the amount of \$385.00, and the additional claim fees are in the amount of \$66.00, for a total amount of \$516.00.

The period for response was set to expire two months from the date of that paper. The unextended deadline for responding is, therefore, August 25, 1997.

Please find enclosed the "RESPONSE" copy of the NOTICE TO FILE MISSING PARTS OF APPLICATION - FILING DATE GRANTED document, a Declaration signed by the named inventor, one (1) VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS, and a check in the amount of \$516.00 (the amount of the surcharge for a small entity, the small entity filing fees, and additional claim fees for a small business entity).

In view of the action taken herein, Applicant would submit that the requirements imposed by the NOTICE TO FILE MISSING PARTS OF APPLICATION - FILING DATE GRANTED paper have been complied with.

It is, therefore, requested that the application be passed for issuance of the formal FILING RECEIPT document.

Respectfully submitted,

David E. Krekelberg

By his attorney,

Dated:

August 25, 1997

Lawrence M. Nawrocki

Lawrence M. Nawrocki, Reg. No. 29,333
NAWROCKI, ROONEY & SIVERTSON, P.A.
Suite 401, Broadway Place East
3433 Broadway Street Northeast
Minneapolis, MN 55413
Telephone: (612) 331-1464
Facsimile: (612) 331-2239



COMBINED DECLARATION/POWER OF ATTORNEY FOR PATENT APPLICATION

a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe that I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled CAMERA CLIP, the specification of which (check one)

☐ is attached hereto

☒ was filed on March 7, 1997
as U.S. Application
Serial No. 08/814,168

☐ and was amended on (if applicable) _____

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

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(Number)	(Country)	(Day/Month/Year Filed)	YES	NO
(Number)	(Country)	(Day/Month/Year Filed)	YES	NO
(Number)	(Country)	(Day/Month/Year Filed)	YES	NO

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, §1.56(a) which

occurred between the filing date of the prior application and the national or PCT international filing date of this application:

(Serial No.)	(Filing Date)	(Status) (patented, pending, abandoned)
--------------	---------------	---

(Serial No.)	(Filing Date)	(Status-patented, pending, abandoned)
--------------	---------------	---------------------------------------

POWER OF ATTORNEY: As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

John L. Rooney, Reg. No. 28,898;
 Lawrence M. Nawrocki, Reg. No. 29,333;
 Wayne A. Sivertson, Reg. No. 25,645;
 David M. Crompton, Reg. No. 36,772;
 Glenn M. Seager, Reg. No. 36,926;
 Steven E. Dicke, Reg. No. 38,431;
 Brian N. Tufte, Reg. No. 38,638;
 Craig F. Taylor, Reg. No. 40,199;
 Donald A. Jacobson, Reg. No. 22,308; and
 Lew Schwartz, Reg. No. 22,067

Send correspondence to:

Lawrence M. Nawrocki
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 Suite 401, Broadway Place East
 3433 Broadway Street Northeast
 Minneapolis, Minnesota 55413
 (612) 331-1464

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon, I further declare that I understand the content of this declaration.

Full name of sole or first inventor David E. Krekelberg
 Inventor's Signature *David E. Krekelberg* Date 8-1-97
 Residence 15604 Dawn Drive, Minnetonka, Minnesota 55345
 Citizenship U.S.A.
 Post Office Address 15604 Dawn Drive
Minnetonka, Minnesota 55345

-3-

1.56 Duty to disclose information material to patentability.

(a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by §§1.97(b)-(d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

- (1) prior art cited in search reports of a foreign patent office in a counterpart application, and
 - (2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.
- (b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and
- (1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or
 - (2) It refutes, or is inconsistent with, a position the applicant takes in:
 - (i) Opposing an argument of unpatentability relied on by the Office, or
 - (ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden-of-proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability.

(c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

- (1) Each inventor named in the application;
- (2) Each attorney or agent who prepares or prosecutes the application; and
- (3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

Applicant or Patentee: David E. Krekelberg Attorney's Docket No.: 19139/103/101Serial or Patent No.: 08/814,168Filed or Issued: March 7, 1997For: CAMERA CLIP

**VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY
STATUS (37 CFR 1.9(f) AND 1.27(c)) -- SMALL BUSINESS CONCERN**

I hereby declare that I am

- ☐ the owner of the small business concern identified below:
☒ an official of the small business concern empowered to act
on behalf of the concern identified below:

NAME OF CONCERN IREZ Research, CorporationADDRESS OF CONCERN 15604 Dawn Drive, Minnetonka, Minnesota 55345

I hereby declare that the above-identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled CAMERA CLIP by inventor(s) David E. Krekelberg described in

- ☒ the specification filed herewith
☐ application serial no. _____, filed _____
☐ patent no. _____, issued _____

If the rights held by the above-identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(b) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e).

*NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27)

NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

NAME _____

ADDRESS _____

☐ INDIVIDUAL ☐ SMALL BUSINESS CONCERN ☐ NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue

fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate.
(37 CFR 1.28(b))

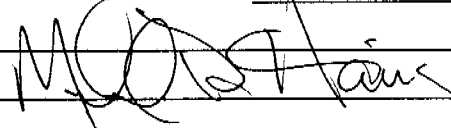
I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING Michael D. Harris

TITLE OF PERSON OTHER THAN OWNER President

ADDRESS OF PERSON SIGNING 15604 Dawn Drive, Minnetonka, Minnesota 55345

SIGNATURE



DATE

8-13-97



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
 Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

APPLICATION NUMBER	FILING/RECEIPT DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO./TITLE
--------------------	---------------------	-----------------------	---------------------------

08/14/1997

08/14/1997

NANROCKI ROONEY STEVENSON
 BROADWAY PLACE EAST
 3403 BROADWAY STREET N.E.
 MINNEAPOLIS MN 55413

DATE MAILED:

NOTICE TO FILE MISSING PARTS OF APPLICATION
Filing Date Granted

An Application Number and Filing Date have been assigned to this application. However, the items indicated below are missing. The required items and fees identified below must be timely submitted **ALONG WITH THE PAYMENT OF A SURCHARGE** for items 1 and 3-6 only of \$ 130.00 for a ☒ large entity ☐ small entity in compliance with 37 CFR 1.27. The surcharge is set forth in 37 CFR 1.16(e). Applicant is given **TWO MONTHS** FROM THE DATE OF THIS NOTICE within which to file all required items and pay any fees required above to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

If all required items on this form are filed within the period set above, the total amount owed by applicant as a

☒ **large entity** ☐ **small entity (verified statement filed), is \$** 130.00.

☒ 1. The statutory basic filing fee is:

- ☒ missing.
☐ insufficient.

Applicant must submit \$ 170.00 to complete the basic filing fee and/or file a verified small entity statement claiming such status (37 CFR 1.27).

☒ 2. Additional claim fees of \$ 132.00, including any multiple dependent claim fees, are required.

Applicant must either submit the additional claim fees or cancel additional claims for which fees are due.

☐ 3. The oath or declaration:

- ☐ is missing.
☐ does not cover the newly submitted items.
☐ does not identify the application to which it applies.
☐ does not include the city and state or foreign country of applicant's residence.

An oath or declaration in compliance with 37 CFR 1.63, including residence information and identifying the application by the above Application Number and Filing Date is required.

☒ 4. The signature(s) to the oath or declaration is/are:

- ☒ missing.
☐ by a person other than inventor or person qualified under 37 CFR 1.42, 1.43, or 1.47.

A properly signed oath or declaration in compliance with 37 CFR 1.63, identifying the application by the above Application Number and Filing Date, is required.

☐ 5. The signature of the following joint inventor(s) is missing from the oath or declaration:

An oath or declaration listing the names of all inventors and signed by the omitted inventor(s), identifying this application by the above Application Number and Filing Date, is required.

☐ 6. A \$ _____ processing fee is required since your check was returned without payment (37 CFR 1.22(m)).

☐ 7. Your filing receipt was mailed in error because your check was returned without payment.

☐ 8. The application does not comply with the Sequence Rules.

See attached "Notice to Comply with Sequence Rules 37 CFR 1.821-1.825."

☐ 9. OTHER:

Direct the response and any questions about this notice to "Attention: Box Missing Parts."

A copy of this notice MUST be returned with the response.

Customer Service Center
 Initial Patent Examination Division (703) 308-1202

09/19/1997 DBEACH 00000055 08814168 385.00
 01 FC:201 66.00
 02 FC:203 65.00
 03 FC:205
 ADJCAM000068



SECTOR
#

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of:

David E. Krekelberg

Serial No.: 08/814,168

Filing Date: March 7, 1997

For: CAMERA CLIP

Docket No.: 19239/103/101

TRANSMITTAL SHEET

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

<p>CERTIFICATE UNDER 37 C.F.R. 1.8: I hereby certify that this correspondence and the documents described herein are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231, on this <u>25th</u> day of <u>August</u>, 19<u>97</u></p> <p>By <u>[Signature]</u> Carolyn J. Erickson</p>
--

We are transmitting herewith the attached:

☐ Amendment

☐ No additional fee required

☐ The fee has been calculated as shown:

CLAIMS AS AMENDED							
	(3)	(4)	(5)	SMALL ENTITY		OTHER	
	REMAINING CLAIMS	HIGHEST PAID	EXTRA	RATE	ADD'L FEE	RATE	ADD'L FEE
TOTAL CLAIMS	-	=		x11=	\$	x22=	\$
INDEPEN-DENT CLAIMS	-	=		x40=	\$	x80=	\$
() FIRST MULTIPLE DEPENDENT CLAIM				+130=	\$	+260=	\$
TOTAL				\$		\$	

- [XXXX] Checks in the amounts of \$516.00 and \$40.00 are enclosed.
- [] Small entity status of this application under 37 C.F.R. 1.9 and 1.27 has been established by verified statement previously submitted.
- [XXXX] Other: Response Copy of Notice to File Missing Parts of Application-Filing Date Granted; Communication; Combined Declaration/Power of Attorney for Patent Application; Verified Statement (Declaration) Claiming Small Entity Status; Recordation Form Cover Sheet-Patents Only; Assignment.
- [XXXX] Please charge any deficiencies or credit any over payment in the enclosed fees to Deposit Account 14-0620.

By: Lawrence M. Nawrocki
Lawrence M. Nawrocki
Reg. No. 29,333

NAWROCKI, ROONEY & SIVERTSON, P.A.
Suite 401, Broadway Place East
3433 Broadway Street N.E.
Minneapolis, Minnesota 55413
Telephone: (612) 331-1464
Facsimile: (612) 331-2239



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/014,168	03/07/97	KREKELBERG	D 19239/103/10

PM31/0206
LAWRENCE M NAWROCKI
NAWROCKI ROONEY & SIVERTSON
BROADWAY PLACE EAST SUITE 401
3433 BROADWAY STREET NORTHEAST
MINNEAPOLIS MN 55413

EXAMINER

PHAN, L

ART UNIT

PAPER NUMBER

3632

DATE MAILED:

02/06/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action SummaryApplication No.
08/814,168Applicant(s)
David E. KrekelbergExaminer
Long Dinh PhanGroup Art Unit
3632☒ Responsive to communication(s) filed on Mar 7, 1997☐ This action is **FINAL**.☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims☒ Claim(s) 1-26 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.☒ Claim(s) 1-26 is/are rejected.☐ Claim(s) _____ is/are objected to.☐ Claims _____ are subject to restriction or election requirement.**Application Papers**☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.☐ The drawing(s) filed on _____ is/are objected to by the Examiner.☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.☐ The specification is objected to by the Examiner.☐ The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119**☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been☐ received.☐ received in Application No. (Series Code/Serial Number) _____.☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)**☒ Notice of References Cited, PTO-892☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____☐ Interview Summary, PTO-413☒ Notice of Draftsperson's Patent Drawing Review, PTO-948☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Serial Number: 08/814,168

Page 2

Art Unit: 3632

DETAILED ACTION

This is the first Office Action for serial number 08/814,168, Camera Clip, filed on March 07, 1997. This application contains 1-26 claims.

Claim Objections

Claims 2-13 and 15-26 are objected to because of the following informalities: on line 1 of claims 2-13 and 15-26, before "apparatus", "An" should be replaced with --The--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claim 1-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of claim 1 is drawn to a subcombination of an apparatus comprising a hinge member and a support frame per se whereas line 3 appears to positively recite "rotatable attached to the camera" this implying a combination claim. On lines 12 and 13, "being substantially parallel to a first surface" is a combination claim. On lines 20-28, "the object having a second surface ..., the camera being maintained ..." is also claiming combination. It is not clear whether applicant intends to claim a subcombination or combination.

In claim 2, lines 3-6, "said second portion supporting the camera" and "said second portion are engaging the first surface" are claiming combination.

In claim 3, line 2, "to releasably hold and protect the camera" is a combination claim.

Serial Number: 08/814,168

Page 3

Art Unit: 3632

On lines 2, 3, 5, 8, and 9 of claim 4, “ comprises the camera” and “ to protect a lens of the camera” are claiming combination.

On lines 2, 3, 6, and 7 of claim 5, “to protect the lens of the camera” and “the camera” are a combination claim.

In claims 6 and 7, lines 2-7, “support the camera” and “engage the first surface” are claiming combination.

On lines 2, 5, 7, and 8 of claim 8, “support camera”, “engage the first and the second surfaces”, and “a center gravity of the camera” are not a subcombination claim.

On lines 1 and 3 of claims 9 and 10, “the object” and “the first surface” are not claiming subcombination.

In claim 11, lines 1, 3, and 4, “the object”, “the second surface”, and “the first surface” are a combination claim.

In claim 12, line 4, “rotatably attaching the camera” is claiming combination.

On lines 1 and 6 of claim 13, “the camera” is a combination claim.

Claims 14-26 are having the same 112 problems of combination and subcombination as indicated in the above claims 1-14.

Applicant is advised to make all the necessary corrections for all the above claims 1-26.

Allowable Subject Matter

Claims 1-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112 set forth in this Office action.

Serial Number: 08/814,168

Page 4

Art Unit: 3632

Conclusion

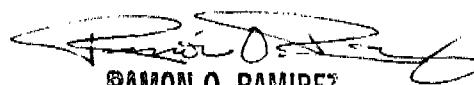
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 1,208,344 to McAll discloses a camera holding device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Dinh Phan whose telephone number is (703) 308-3409. The examiner can normally be reached on Tuesday through Friday from 8:00 A.M. to 6:00 P.M. E.S.T.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. The fax number for this Group is (703) 305-3597 or 3598.

Long Dinh Phan LDP

January 30, 1998


RAMON O. RAMIREZ
PRIMARY EXAMINER
ART UNIT 355

FORM PTO 948 (REV. 01-97)

U.S. DEPARTMENT OF COMMERCE-Patent and Trademark Office

Application No.

814168

NOTICE OF DRAFTPERSON'S PATENT DRAWING REVIEW

The drawing filed (insert date) 3/17/97 are:

- A. ☐ not objected to by the Draftperson under 37 CFR 1.84 or 1.152.
- B. ☒ objected to by the Draftperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this notice.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink. Color.

- ☐ Color drawing are not acceptable until petition is granted.
Fig.(s) _____
- ☐ Pencil and non black ink is not permitted. Fig(s) _____

2. PHOTOGRAPHS. 37 CFR 1.84(b)

- ☐ Photographs are not acceptable until petition is granted,
- ☐ 3 full-tone sets are required. Fig(s) _____
- ☐ Photographs not properly mounted (must bristol board or photographic double-weight paper). Fig(s) _____
- ☐ Poor quality (half-tone). Fig(s) _____

3. TYPE OF PAPER. 37 CFR 1.84(e)

- ☐ Paper not flexible, strong, white and durable.
Fig.(s) _____
- ☐ Erasures, alterations, overwritings, interlineations, folds, copy machine marks not acceptable. (too thin)
- ☐ Mylar, vellum paper is not acceptable (too thin).
Fig(s) _____

4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:

- ☐ 21.0 cm by 29.7 cm (DIN size A4)
- ☐ 21.6 cm by 27.9 cm (8 1/2 x 11 inches)
- ☐ All drawings sheets not the same size.
Sheet(s) _____

5. MARGINS. 37 CFR 1.84(g): Acceptable margins:

- Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
SIZE: A4 Size
- Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
SIZE: 8 1/2 x 11
- ☒ Margins not acceptable. Fig(s) 1-3
- ☒ Top (T) ☒ Left (L)
- ☐ Right (R) ☐ Bottom (B)

6. VIEWS. CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

- ☐ Views connected by projection lines or lead lines.
Fig.(s) _____
- Partial views. 37 CFR 1.84(h)(2)
- ☐ Brackets needed to show figure as one entity.
Fig.(s) _____
- ☐ Views not labeled separately or properly.
Fig.(s) _____
- ☐ Enlarged view not labeled separately or properly.
Fig.(s) _____

7. SECTIONAL VIEWS. 37 CFR 1.84(h)(3)

- ☐ Hatching not indicated for sectional portions of an object.
Fig.(s) _____
- ☐ Sectional designation should be noted with Arabic or Roman numbers. Fig.(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

- ☐ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned, so that the top becomes the right side, except for graphs. Fig.(s) _____
- ☐ Views not on the same plane on drawing sheet. Fig.(s) _____

9. SCALE. 37 CFR 1.84(k)

- ☐ Scale not large enough to show mechanism with crowding when drawing is reduced in size to two-thirds in reproduction.
Fig.(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)

- ☒ Lines, numbers & letters not uniformly thick and well defined, clean, durable and black (poor line quality).
Fig.(s) 1-6

11. SHADING. 37 CFR 1.84(m)

- ☐ Solid black areas pale. Fig.(s) _____
- ☐ Solid black shading not permitted. Fig.(s) _____
- ☐ Shade lines, pale, rough and blurred. Fig.(s) _____

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.48(p)

- ☐ Numbers and reference characters not plain and legible.
Fig.(s) _____
- ☐ Figure legends are poor. Fig.(s) _____
- ☐ Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(3) Fig.(s) _____
- ☐ English alphabet not used. 37 CFR 1.84(p)(3) Fig.(s) _____
- ☒ Numbers, letters and reference characters must be at least .32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3) Fig.(s) 1-6

13. LEAD LINES. 37 CFR 1.84(q)

- ☐ Lead lines cross each other. Fig.(s) _____
- ☐ Lead lines missing. Fig.(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.48(t)

- ☐ Sheets not numbered consecutively, and in Arabic numerals beginning with number 1. Fig.(s) _____

15. NUMBERING OF VIEWS. 37 CFR 1.84(u)

- ☐ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig.(s) _____

16. CORRECTIONS. 37 CFR 1.84(w)

- ☐ Corrections not made from PTO-948 dated _____

17. DESIGN DRAWINGS. 37 CFR 1.152

- ☐ Surface shading shown not appropriate. Fig.(s) _____
- ☐ Solid black shading not used for color contrast.
Fig.(s) _____

COMMENTS

REVIEWER

A. Dean

DATE

10/18/97

TELEPHONE NO.

7033058400

ATTACHMENT TO PAPER NO.

4

ADJCAM000076

Notice of References Cited		Application No. 08/814,168	Applicant(s) David E. Krekelberg			
		Examiner Long Dinh Phan	Group Art Unit 3632	Page 1 of 1		
U.S. PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	NAME		CLASS	SUBCLASS
A	1,208,344	12/1916	McAll		248	126
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						
L						
M						
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N						
O						
P						
Q						
R						
S						
T						
NON-PATENT DOCUMENTS						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)					DATE
U						
V						
W						
X						



#5 Reg. 1/10
6/25/98

P A T E N T

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David E. Krekelberg

Serial No.: 08/814,168

Examiner: Phan, L.

Filed : March 7, 1997

Group Art Unit: 3632

For : CAMERA CLIP

Docket No.: 19239/103/101

Assistant Commissioner
for Patents
Washington, D.C. 20231

CERTIFICATE UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an enveloped addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on this 8th day of June, 1998

By: _____

Carelyn I. Erickson

Sir:

PETITION FOR EXTENSION OF TIME

It is requested that the time for filing the enclosed AMENDMENT, now set to expire on May 7, 1998, be extended for one month to now expire on June 7, 1998. A check in the amount of \$55.00 is enclosed.

Respectfully submitted,

David E. Krekelberg

By his attorney

Date

June 8, 1998

Lawrence M. Nawrocki
Lawrence M. Nawrocki
Reg. No. 29,333

NAWROCKI, ROONEY & SIVERTSON, P.A.
Suite 401, Broadway Place East
3433 Broadway St. N.E.
Minneapolis, MN 55413
(612) 331-1464

06/17/1998 MINNAPOLIS 00000025 00814168

02 FC:215

55.00 DP

Req Ext of Time
Approved 1/22/0
Clerk, Group 350

PN
6-25-98



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

GP3632

\$

Application of:

David E. Krekelberg

Serial No.: 08/814,168

Examiner: Phan, L.

Filing Date: March 7, 1997

Group Art Unit: 3632

For: CAMERA CLIP

Docket No.: 19239/103/101

TRANSMITTAL SHEET

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

<p>CERTIFICATE UNDER 37 C.F.R. 1.8: I hereby certify that this correspondence and the documents described herein are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231, on this <u>8th</u> day of <u>June</u>, 19<u>98</u>.</p> <p>By <u>[Signature]</u> Carolyn T. Erickson</p>	
---	--

We are transmitting herewith the attached:

[XXX] Amendment

[] No additional fee required

[XX] The fee has been calculated as shown:

CLAIMS AS AMENDED							
	(3)	(4)	(5)	SMALL ENTITY		OTHER	
	REMAINING CLAIMS	HIGHEST PAID	EXTRA	RATE	ADD'L FEE	RATE	ADD'L FEE
TOTAL CLAIMS	21 -	26	0	x11=	\$	x22=	\$
INDEPEN-DENT CLAIMS	5 -	3	2	x41=	\$82	X82=	\$
() FIRST MULTIPLE DEPENDENT CLAIM				+135=	\$	+270 =	\$
TOTAL				\$82.00		\$	

[XXXX] Checks in the amounts of \$55.00 and \$82.00 are enclosed.

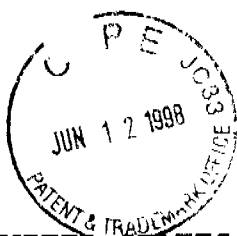
[XXXX] Small entity status of this application under 37 C.F.R. 1.9 and 1.27 has been established by verified statement previously submitted.

[XXXX] Other: Petition for Extension of Time.

[XXXX] Please charge any deficiencies or credit any over payment in the enclosed fees to Deposit Account 14-0620.

By: *Lawrence M. Nawrocki*
Lawrence M. Nawrocki
Reg. No. 29,333

NAWROCKI, ROONEY & SIVERTSON, P.A.
Suite 401, Broadway Place East
3433 Broadway Street N.E.
Minneapolis, Minnesota 55413
Telephone: (612) 331-1464
Facsimile: (612) 331-2239



P A T E N T

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David E. Krekelberg

Serial No.: 08/814,168

Examiner: Phan, L.

Filed : March 7, 1997

Group Art Unit: 3632

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Assistant Commissioner for Patents
Washington, D.C. 20231

CERTIFICATE UNDER 37 C.F.R. 1.8: I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C., 20231 on this 20th day of June, 1998.

By

Carol A. Erickson

Sir:

AMENDMENT

This Amendment is being filed in response to the presently outstanding Official Action issued by the Examiner regarding the above-captioned matter. Please amend the case as follows.

In the claims

Please amend Claim 1 as follows:

1. (Amended) [An apparatus] Apparatus for supporting a camera, having a lens, on any generally horizontal, substantially planar surface and on an object having a first surface and a second surface and an edge

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intersecting the first surface and the second surface,
comprising:

- a. a hinge member adapted to be rotatably attached to the camera, said camera, when the hinge member is so attached, rotating, [over] about a first axis of rotation, relative to said hinge member; and
- b. a support frame [hingedly] rotatably attached to said hinge member [to engagingly support said hinge member on the object] and configured to support said hinge member on the surface and the object, said hinge member rotating [over] about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to [a] the first surface when said hinge member is [engagingly] supported on the object, said support frame [supporting said camera in] having a first [position] disposition positioned on [the object when said first surface is] said generally horizontal, substantially [level] planar surface, and said support frame [supporting the camera in] having a second [position on] disposition attached to the object when said first surface and said second surface are [is] inclined from [said] a generally horizontal orientation

Q1 [substantially level position], [the object having a second surface wherein a thickness between the first surface and said second surface defines an edge therebetween,] the camera being maintained adjacent said edge in said second disposition of said support frame [position when the uppermost portion of the object is the edge, rotation of said support frame being prevented along an axis substantially parallel to said second axis, said second axis being substantially parallel to said edge].

(Please amend Claim 2 as follows:)

2. (Amended) [An apparatus] Apparatus according to claim 1 wherein the support frame comprises a first portion and a second portion, [said first portion and said second portion supporting the camera in] the support frame being in the first [position] disposition on the [first] generally horizontal, substantially planar surface when distal extremities of said first portion and said second portion are engaging the generally horizontal, [first surface when the first surface is] substantially [level] planar surface, [said first portion and said second portion supporting the camera in] and the support frame being in the second [position] disposition on the [first surface adjacent the edge] object when said first portion is engaging

Q1 the first surface and said second portion is engaging [the edge and] the second surface, said first portion and said second portion in combination maintaining the camera adjacent the edge [and preventing rotation of the support frame along the axis substantially parallel to the second axis].

Please cancel Claim 3.

Please amend Claim 4 as follows:

3A. (Amended) [An apparatus] Apparatus according to claim [3] 2 wherein the support frame includes a cover ^{adapted} to [means to releasably hold and] protect the camera [comprises] lens when the camera [being] is rotated [around] about the second axis [in a direction from the second portion towards the first portion of the support frame] until the camera is [in a position] between the first portion and the second portion [and is releasably held between the first portion and the second portion, the first portion having means to protect a lens of the camera].

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Please amend Claim 5 as follows:

4B. (Amended) [An apparatus] Apparatus according to Claim ³⁵ 4 wherein the [means to] first portion of the support frame further includes said cover, [protect the lens of

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 the camera is a] said cover being mounted at the distal end of the first portion[,]^{and adapted} ~~to receive~~ the lens of the camera [facing in the direction of rotation about the second axis from the second portion to the first portion of the support frame to allow the lens of the camera to be fitably received into said cover when the camera is releasably held between the first portion and the second portion].

(Please amend Claim 6 as follows:)

~~5/~~ (Amended) [An apparatus] Apparatus according to Claim 2 wherein the [first portion and the second portion support the camera] support frame is in the first [position on the first surface] disposition when the first portion and the second portion engage the [first] generally horizontal, substantially planar surface at three or more locations in a common plane [of the first surface to prevent], thereby preventing rotation of the support frame relative to the [first] generally horizontal, substantially planar surface in any direction [within said plane of the surface].

Please cancel Claim 7.

Please amend Claim 8 as follows:

6-8. (Amended) [An apparatus] Apparatus according to Claim 2 wherein the [first portion and the second portion support the camera] support frame is in the second [position on the first surface adjacent the edge] disposition when a first distance from the edge to [the position] a location where the first portion engages the first surface is greater than a second distance from the edge to [the position] a location where the second portion engages the second surface, [a center of gravity of the camera and said hinge member being adjacent and external to the first surface in combination with the first distance being greater than the second distance] thus preventing rotation of the support frame [along an axis substantially parallel to the second axis of rotation].

Please cancel Claims 9-10, inclusive.

Please amend Claim 11 as follows:

7-11. (Amended) [An apparatus] Apparatus according to Claim 1 wherein the object is a display screen for a laptop computer [when the support frame is in the second position], and the second surface [being] is the front of the display screen and the first surface [being] is the back of the display screen.

Please amend Claim 12 as follows:

8. ~~12.~~ (Amended) [An apparatus] Apparatus according to Claim 1 wherein the hinge member [is comprised of] includes a body having a proximal and a distal end, a pivot element at said proximal end of said body adapted to rotatably [attaching] attach the camera to the body so that the camera rotates about the first axis relative to the body, and a hinge element at said distal end of said body hingedly attaching said body to the support frame so that said body rotates, about the second axis, relative to the support frame.

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Please amend Claim 13 as follows:

9. ~~13.~~ (Amended) [An apparatus] Apparatus according to Claim ~~12~~ ⁸ wherein [the camera has an electrical wiring harness to couple from an interior to an exterior,] the pivot element [having] has a bore[parallel to] along the first axis of rotation to receive an electrical wiring harness [to] and pass said wiring harness [from said interior] to [said exterior of] the camera.

Please amend Claim 14 as follows:

10. ~~14.~~ (Amended) [An apparatus] Apparatus for supporting a camera, having a housing and a lens, on any generally horizontal, substantially planar surface and on an object having a first surface and a second surface, and an edge intersecting the first surface and the second

surface, comprising:

- a. a hinge member adapted to be rotatably attached to the camera, said camera, when the hinge member is so attached, rotating, [over] about a first axis of rotation relative to said hinge member; and
- b. a support frame [hingedly] rotatably attached to said hinge member [to engagingly support said hinge member on the object] and configured to support said hinge member on the surface and the object, said hinge member rotating [over] about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to [a] the first surface when said hinge member is [engagingly] supported on the object, the support frame having a rear support element and a first and a second front support element, said [rear support element and said first and said second front support elements supporting the camera in the] support frame having a first [position] disposition positioned on [said first] said generally horizontal, substantially planar surface when said rear support element and said first and second front support elements are engaging said [first] generally horizontal,

substantially planar surface [when said first surface is substantially level], said [rear support element and said first and said second front support elements supporting the camera in] support frame having a second [position] disposition attached to the object [on said first surface adjacent an edge] when [said] the first surface is inclined from [said] a substantially [level] horizontal position so that an uppermost extremity of the object is the edge, [the object having a second surface wherein a thickness between said first surface and said second surface defines said edge therebetween, the camera] the support frame being maintained [adjacent said edge] in said second [position when the uppermost portion of the object is the edge,] disposition by said rear support element engaging said first surface and said first and second front support elements engaging [the edge and] the second surface, said rear support element and said first and second front support elements in combination [maintaining the camera adjacent the edge and] preventing rotation of the support frame [along an axis substantially parallel to the second axis, said second axis being substantially parallel to said edge].

Please cancel Claim 15.

Please amend Claim 16 as follows:

11~~16~~. (Amended) [An apparatus] Apparatus according to claim
 [15] ¹⁰~~14~~ wherein the [means to] support frame
 B [releasably hold and protect] ^{adapted to protect} ~~protects~~ the camera
 [comprises] when the camera [being] is rotated [around]
about the second axis [in a direction from the first
 and second front support elements] towards the rear
 support element of the support frame until the camera
 is [in a position] between the rear support element and
 the first and second front support elements, and is
 releasably held between the rear support element and
 the first and second front support elements[, the rear
 support element having means to protect a lens of the
 camera].

(Please amend Claim 17 as follows:)

12~~17~~. (Amended) [An apparatus] Apparatus according to Claim
¹¹~~16~~ wherein the first and second front support elements
 are spaced a distance apart [at a], and wherein said
 distance is less than a diameter of [a] the housing of
 the camera[, so that as the camera is being rotated
 [around] about the second axis in the direction towards
 the rear support element, [so that] said housing passes
 between the first and second front support elements[,]

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 and the first and second front support elements resiliently [and outwardly flexing] flex outwardly to accommodate passage of said housing, said housing being releasably held once passing between the first and second front support elements by the rear support element engaging said housing at the lens[, the first and second front support elements engaging said housing backside to resiliently urge said housing towards the rear support element].

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 Please amend Claim 18 as follows:

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Correct
 (Amended) [An apparatus] Apparatus according to Claim ~~18~~ wherein the [means to] first portion of the support frame further has a cover, [protect the lens of the camera is a] said cover being mounted at [the] a distal end of the rear support element[, ^{and adapted} to receive the lens of the camera [facing in the direction of rotation about the second axis from the first, and second front support elements to the rear support element of the support frame to allow the lens of the camera to be fitably received into said cover] when the camera is releasably held between the rear support element and the first and second front support elements.

Please amend Claim 19 as follows:

114. (Amended) [An apparatus] Apparatus according to Claim 10 wherein the [rear support element and the first and second front support elements support the camera] support frame is in the first [position on the first surface] disposition when the rear support element and the first and second front support elements engage the [first] generally horizontal, substantially planar surface at three or more locations in a common plane of the [first] generally horizontal, substantially planar surface to prevent rotation of the support frame relative to the [first] generally horizontal, substantially planar surface [in any direction within said plane of the first surface].

Please amend Claim 20 as follows:)

1520. (Amended) [An apparatus] Apparatus according to Claim 10 wherein the [rear support element and the first and second front support elements support the camera] support frame is in the first [position] disposition positioned on the [first] generally horizontal, substantially planar surface when the rear support element and the first and second front support elements engage the [first] generally horizontal, substantially planar surface to prevent rotation of the support frame relative to the [first] generally horizontal, substantially planar surface [in any direction within a

plane of the first surface].

Please amend Claim 21 as follows:

16 ~~21~~. (Amended) [An apparatus] Apparatus according to Claim
10 ~~14~~ wherein the [rear support element and the first and
second front support elements support the camera]
support frame is in the second [position on the first
surface adjacent the edge] disposition when a first
distance from the edge to [the position] a location
where the rear support element engages the first
surface is greater than a second distance from the edge
to [the position] a location where the first and second
front support elements engage the second surface, [a
center of gravity of the camera and said hinge member
being adjacent and external to the first surface in
combination with] the first distance being greater than
the second distance thus preventing rotation of the
support frame [along an axis substantially parallel to
the second axis of rotation].

Please cancel Claims 22-24, inclusive.

Please amend Claim 25 as follows:

26 ~~25~~. (Amended) [An apparatus] Apparatus according to Claim
10 ~~14~~ wherein the hinge member [is comprised of] includes
a body having a proximal and a distal end, a pivot

element at said proximal end of said body adapted to
 rotatably [attaching] attach the camera to the body so
 that the camera rotates about the first axis relative
 to the body, and a hinge element at said distal end of
 said body hingedly attaching said body to the support
 frame so that said body rotates about the second axis
 relative to the support frame.

A 6 (Please amend Claim 26 as follows:)

~~18~~ 26. (Amended) [An apparatus] Apparatus according to claim
~~17~~ 25 wherein [the camera has an electrical wiring harness
 to couple from an interior to an exterior,] the pivot
 element [having] has a bore [parallel to] along the
 first axis of rotation to receive said electrical
 wiring harness [to] and pass said wiring harness [from
 said interior] to [said exterior of] the camera.

(Please add new Claims 27-29 as follows:)

A 7 ~~19~~ 27. (Newly presented) A camera clip for supporting a camera
 on a laptop computer, the laptop computer having a
 display screen which can be inclined from a generally
 horizontal position, an uppermost portion of the
 display screen defining an edge, comprising:

- a. a hinge member adapted to be rotatably attached to
 the camera, said camera rotating about a first
 axis of rotation relative to said hinge member;

and

- b. a support frame hingedly attached to said hinge member to engagingly support said hinge member on the display screen, said hinge member rotating over a second axis of rotation relative to said support frame, the camera being maintained adjacent the edge, rotation of said support frame being prevented along an axis substantially parallel to said second axis where said second axis is substantially parallel to said edge.

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cont'd ²⁰
~~28.~~ (Newly presented) Apparatus for supporting a camera having a lens on a substantially level surface, comprising:

- a. a hinge member adapted to be rotatably attached to the camera, the camera rotating about a first axis of rotation relative to said hinge member; and
- b. a support frame rotatably attached to said hinge member and configured to support said hinge member on a generally horizontal, substantially planar surface, said hinge member rotating about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to the generally horizontal,

substantially planar surface when said hinge member is supported on the generally horizontal, substantially planar surface, said support frame having a first portion and a second portion wherein said support frame protects the camera when said hinge member is not supported on the generally horizontal, substantially planar surface, and when the camera is rotated around said second axis in a direction from said second portion towards said first portion of said support frame until the camera is between said first portion and said second portion and is releasably held between said first portion and said second portion.

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29. (Newly presented) Apparatus for supporting a camera, having a lens, on an object having a first surface and a second surface, wherein a thickness measured between the first surface and the second surface defines an edge therebetween, comprising:
- a. a hinge member adapted to be rotatably attached to the camera, said camera, when the hinge member is so adapted, rotating about a first axis of rotation relative to said hinge member; and
 - b. a support frame rotatably attached to said hinge member and configured to support said hinge member

Q7 on the object, said hinge member rotating about a second axis of rotation relative to said support frame, said first axis of rotation being generally perpendicular to said second axis of rotation, said second axis of rotation being substantially parallel to the first surface when said hinge member is supported by said support frame on the object, said support frame supporting said hinge member on the object when said first surface is inclined from a substantially horizontal position, the camera being maintained adjacent the edge when an uppermost extremity of the object is the edge, rotation of said support frame being precluded about an axis substantially parallel to said second axis, said second axis being substantially parallel to said edge, said support frame having a first portion and a second portion wherein said support frame releasably holds and protects the camera when said hinge member is not supported by said support frame on the object and the camera is rotated around said second axis in a direction from said second portion towards said first portion of said support frame until the camera is between said first portion and said second portion and is releasably held between said first portion and said second portion.

R E M A R K S

The preceding amendment and following remarks are submitted in response to the presently outstanding Official Action of the examiner. Having fully responded to each objection and ground of rejection of the examiner, all pending claims are believed to be in condition for allowance. Entry of these amendments and reconsideration by the examiner to that end is respectfully requested.

The examiner objected to claims 2-13 and 15-26 because, at line 1 of claims 2-13 and 15-26, before "apparatus", "An" should be replaced with --The--. In response, Applicant has amended claims 1-2, 4-6, 8, 11-14, 16-21 and 25-26 to make appropriate correction.

Claims 1-26 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. The Examiner stated that the preamble of claim 1 is drawn to a subcombination of an apparatus comprising a hinge member and a support frame per se whereas line 3 appears to positively recite "rotatable attached to the camera", thus implying a combination claim. The Examiner further stated that, at lines 12 and 13, "being substantially parallel to a first surface" is a combination claim. The Examiner further stated that, at lines 20-28, "the object having a second surface . . . , the camera being maintained . . . " is also

claiming a combination. The Examiner stated that it is not clear whether Applicant intends to claim a subcombination or a combination.

In response, Applicant has amended claim 1 to more clearly identify the "work pieces" in the preamble and thereby focus upon the elements of the invention, e.g. the hinge member and the support frame, in the claim body. Applicant has amended the preamble of claim 1 to recite "a camera having a lens on an object, the object having a first surface and a second surface" wherein a thickness between the first surface and the second surface defines an edge therebetween. Applicant has also amended other portions of claim 1 to be consistent with the above changes.

The Examiner stated that in claim 2, lines 3-6, "said second portion supporting the camera" and "said second portion are engaging the first surface" are claiming combination. In response, Applicant has amended claim 2 to remove the language "said first portion and said second portions supporting the camera in" and replace it with "the support frame being in...".

The Examiner stated that in claim 3, line 2 "to releasably hold and protect the camera" is a combination claim. Claim 3 has been cancelled.

The Examiner stated that on lines 2, 3, 5, 8, and 9 of claim 4, "comprises the camera" and "to protect a lens of the camera" are claiming combination. In response Applicant

has amended claim 4 to make it clear that the camera is a "work piece" and to make other clarifications.

The Examiner stated on lines 2, 3, 6, and 7 of claim 5, "to protect the lens of the camera" and "the camera" are a combination claim. In response, Applicant has amended claim 5, and it is clear that the camera and the lens of the camera are "work pieces" and to make other amendments for clarification.

The Examiner stated that in claims 6 and 7, lines 2-7, "support the camera" and "engage the first surface" are claiming combination. In response, Applicant has amended claims 6 and 7 to clarify inventive structure and "work pieces".

The Examiner stated on lines 2, 5, 7, and 8 of claim 8, "support camera", "engage the first and the second surfaces", and "a center of gravity of the camera" are not a subcombination claim. In response, Applicant has amended claim 8 to remove "first portion and the second portion support the camera" to replace it with "support frame". Applicant has amended claim 8 to remove any ambiguity regarding combination/subcombination issues.

The Examiner states in lines 1 and 3 of Claims 9 and 10, "the object" and "the first surface" are not claiming subcombination. In response, Applicant has cancelled Claims 9 and 10.

The Examiner states that in claim 11, lines 1, 3 and 4,

"the object", and "the second surface", and "the first surface" are a combination claim. In response, Applicant has amended claim 11 to make amendments to further clarify the combination/subcombination issues.

The Examiner stated that in claim 12, line 4, "rotatably attaching the camera" is claiming combination. In response, Applicant has amended claim 12 to define the interaction between the work piece, the camera, and the body, an element of the invention.

The Examiner stated on lines 1 and 6 of claim 13, "the camera" is a combination claim. In response, Applicant has amended claim 13 to remove "the camera" as an element of the invention.

The Examiner stated that claims 14-26 have the same §112 problems of combination and subcombination as indicated in the above claims 1-14. In response, Applicant has amended these claims to overcome the §112 problems of combination and subcombination as were discussed above.

Applicant has added newly presented claims 27-29. Applicant submits that, in view of the above arguments regarding pending Claims 1-2, 4-6, 8, 11-14, 16-21, and 25-26; Claims 27-29 are also in condition for allowance.

Having thus addressed each objection and ground of rejection of the Examiner, pending claims 1-2, 4-6, 8, 11-14, 16-21, and 25-26, as well as newly presented claims 27-29, are now believed to be in condition for allowance.

Entry of the present amendment and reconsideration to that end is respectfully requested.

Please charge any deficiencies or credit any overpayment to Deposit Account 14-0620.

Respectfully submitted,

David E. Krekelberg

By his attorney,

Dated:

June 8, 1998

Lawrence M. Nawrocki

Lawrence M. Nawrocki

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Interview SummaryApplication No.
08/814,168Applicant(s)
David E. KrekelbergExaminer
Long Dinh PhanGroup Art Unit
3632

All participants (applicant, applicant's representative, PTO personnel):

(1) Long Dinh Phan

(3) _____

(2) Lawrence M. Nawroki

(4) _____

Date of Interview Jul 7, 1998Type: ☒ Telephonic ☐ Personal (copy is given to ☐ applicant ☐ applicant's representative).Exhibit shown or demonstration conducted: ☐ Yes ☒ No. If yes, brief description:Agreement ☒ was reached. ☐ was not reached.Claim(s) discussed: 4, 5, 16, and 18

Identification of prior art discussed:

None

Description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Applicant agreed to amend the claims to overcome possible 112 problems and pass the case to issue.

(A fuller description, if necessary, and a copy of the amendments, if available, which the examiner agreed would render the claims allowable must be attached. Also, where no copy of the amendments which would render the claims allowable is available, a summary thereof must be attached.)

- 1.
- ☒
- It is not necessary for applicant to provide a separate record of the substance of the interview.

Unless the paragraph above has been checked to indicate to the contrary, A FORMAL WRITTEN RESPONSE TO THE LAST OFFICE ACTION IS NOT WAIVED AND MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a response to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW.

- 2.
- ☐
- Since the Examiner's interview summary above (including any attachments) reflects a complete response to each of the objections, rejections and requirements that may be present in the last Office action, and since the claims are now allowable, this completed form is considered to fulfill the response requirements of the last Office action. Applicant is not relieved from providing a separate record of the interview unless box 1 above is also checked.

Examiner Note: You must sign and stamp this form unless it is an attachment to a signed Office action.



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
 Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/814,168	03/07/97	KREKELBERG	19239/103/1

PM31/0715

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EXAMINER

PHAN, L

ART UNIT

PAPER NUMBER

3632

DATE MAILED: 07/15/90

8/B PAT
 7-1-90

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Notice of AllowabilityApplication No.
08/814,168Applicant(s)
David E. KrekelbergExaminer
Long Dinh PhanGroup Art Unit
3632

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to amendment filed on 06/12/1998.

☒ The allowed claim(s) is/are 1, 2, 4-6, 8, 11-14, 16-21, and 25-29.

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 4.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☒ Interview Summary, PTO-413

☒ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☒ Examiner's Statement of Reasons for Allowance

Serial Number: 08/814,168

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Art Unit: 3632

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Lawrence M. Nawrocki on July 07, 1998.

The application has been amended as follows:

In the Claims:

Claim 4- line 2: after "cover", inserted --adapted--.

Claim 5- line 5: before "to receive", inserted --and adapted--.

Claim 16- line 3: before "the camera", replaced "protects" with --adapted to protect--.

Claim 18- line 5: before "to receive", inserted --and adapted--.

The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose nor suggest apparatus for supporting a camera, comprising a hinge member adapted to be rotatably attached to the camera about a first axis of rotation; and a support frame rotatably attached to the hinge member about a second axis of rotation and configured to support the hinge member on a surface and an object. Applicant's invention is deemed to be novel and unobvious over the prior art of record and thus allowable for patent.

Any comments considered necessary by applicant must be submitted no later than the

Serial Number: 08/814,168

Page 3

Art Unit: 3632

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

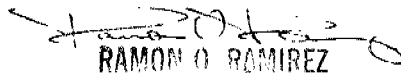
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Long Dinh Phan whose telephone number is (703) 308-3409. The examiner can normally be reached on Tuesday through Friday from 8:00 A.M. to 6:00 P.M. E.S.T.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. The fax number for this Group is (703) 305-3597 or 3598.

Long Dinh Phan LDP

July 14, 1998


RAMON O. RAMIREZ
PRINCIPAL EXAMINER
ART UNIT 355 36 32



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

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BROADWAY PLACE EAST SUITE 400
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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/814,168	03/07/97	021	THAN 1	06/32
First Named Applicant	KREKELBERG, LAWRENCE M.			

TITLE OF INVENTIONCAMERA CLIP

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3	19239/103/10	248-121-000	054	YES	550.00	09/07/00

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

- I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

 - A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
 - B. If the status is the same, pay the FEE DUE shown above.
- If the SMALL ENTITY is shown as NO:

 - A. Pay FEE DUE shown above, or
 - B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.
- II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

PART B—ISSUE FEE TRANSMITTAL

Complete and mail this form, together with appropriate fees, to: **Box ISSUE FEE**
Assistant Commissioner for Patents
Washington, D.C. 20231

242 - 6660
 5261 - 30

MAILING INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE. Blocks 1 through 4 should be completed where appropriate. All further correspondence including the Issue Fee Receipt, the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1)

LAWRENCE M. NAWROCKI
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 BROADWAY PLACE EAST SUITE 400
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 MINNEAPOLIS MN 55413

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16

Note: The certificate of mailing below can only be used for domestic mailings of the Issue Fee Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing.

Certificate of Mailing

I hereby certify that this Issue Fee Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Box Issue Fee address above on the date indicated below.

Carolyn L. Erickson

(Depositor's name)

(Signature)

(Date)

10/15/98

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/814,168 ✓	03/07/97	021	PHAN, L	07/15/98
First Named Applicant: KREKELBERG, DAVID E.				

TITLE OF INVENTION: CAMERA CLIP

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3	19239/103/10	248-121.000	G54	UTILITY	YES	\$660.00

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363). Use of PTO form(s) and Customer Number are recommended, but not required.

☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47) attached.

2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 NAWROCKI, ROONEY & SIVERTSON, P.L.
 2 _____
 3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)
PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment has been previously submitted to the PTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

iREZ Research, Corporation

(B) RESIDENCE: (CITY & STATE OR COUNTRY)

Minnetonka, Minnesota

Please check the appropriate assignee category indicated below (will not be printed on the patent)

☐ individual ☒ corporation or other private group entity ☐ government

4a. The following fees are enclosed (make check payable to Commissioner of Patents and Trademarks):

☒ Issue Fee

☒ Advance Order - # of Copies 10

4b. The following fees or deficiency in these fees should be charged to:

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☐ Issue Fee

☐ Advance Order - # of Copies

The COMMISSIONER OF PATENTS AND TRADEMARKS IS requested to apply the Issue Fee to the application identified above.

(Authorized Signature) Lawrence M. Nawrocki

(Date)

OCT 15, 1998

NOTE: The Issue Fee will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the Patent and Trademark Office.

Burden Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending on the needs of the individual case. Any comments on the amount of time required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND FEES AND THIS FORM TO: Box Issue Fee, Assistant Commissioner for Patents, Washington D.C. 20231

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10/23/1998 CASHBY 00000026 08814168

01 FC:242
 02 FC:561

660.00 OP
 30.00 OP

TRANSMIT THIS FORM WITH FEE

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David E. Krekelberg

Serial No.: 08/814,168

Examiner: L. Phan

Filing Date: March 7, 1997

Group Art Unit: 3632

For: CAMERA CLIP

Docket No.: 19239/103/101

TRANSMITTAL SHEET

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

<p>CERTIFICATE UNDER 37 C.F.R. 1.8: I hereby certify that this correspondence and the documents described herein are being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231, on this <u>15th</u> day of <u>October, 1997</u></p> <p>By <u>[Signature]</u> Carolyn L. Erickson</p>

We are transmitting herewith the attached:

- [] Amendment
- [] No additional fee required
- [] The fee has been calculated as shown:

CLAIMS AS AMENDED							
	(3)	(4)	(5)	SMALL ENTITY		OTHER	
	REMAINING CLAIMS	HIGHEST PAID	EXTRA	RATE	ADD'L FEE	RATE	ADD'L FEE
TOTAL CLAIMS	-	=		x11=	\$	x22=	\$
INDEPENDENT CLAIMS	-	=		x41=	\$	X82=	\$
() FIRST MULTIPLE DEPENDENT CLAIM				+135=	\$	+270 =	\$
TOTAL				\$		\$	

- [XXXX] A check in the amount of \$ 690.00 is enclosed.
- [XXXX] Small entity status of this application under 37 C.F.R. 1.9 and 1.27 has been established by verified statement previously submitted.
- [XXXX] Other: Part B-Issue Fee Transmittal (with Certificate of Mailing); Letter to Official Draftsperson; Two (2) Sheets of Formal Drawings.
- [XXXX] Please charge any deficiencies or credit any over payment in the enclosed fees to Deposit Account 14-0620.

By: *Lawrence M. Nawrocki*
Lawrence M. Nawrocki
Reg. No. 29,333

NAWROCKI, ROONEY & SIVERTSON, P.A.
Suite 401, Broadway Place East
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Minneapolis, Minnesota 55413
Telephone: (612) 331-1464
Facsimile: (612) 331-2239

P A T E N T

Serial No.: 08/814,168
Filed: March 7, 1997
Batch No.: G54

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

David E. Krekelberg

Serial No.: 08/814,168

Filed: March 7, 1997

For: CAMERA CLIP

Docket No.: 19239/103/101

RECEIVED
Publishing Division
OCT 20 1998

Examiner: L. Phan

Group Art: 3632

16

Assistant Commissioner
for Patents
Washington, D.C. 20231

CERTIFICATE UNDER 37 C.F.R. 1.8

I hereby certify that this correspondence is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an enveloped addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231 on this 15th day of October, 1998

By: _____

Carolyn F. Erickson

Sir:

LETTER TO OFFICIAL DRAFTSPERSON

Submitted herewith are two (2) sheets of formal drawings for filing in the above-identified application.

Respectfully submitted,

David E. Krekelberg

By his attorney,

Lawrence M. Nawrocki

Lawrence M. Nawrocki

Reg. No. 29,333

NAWROCKI, ROONEY & SIVERTSON, P.A.

Suite 401, Broadway Place East

3433 Broadway St. N.E.

Minneapolis, MN 55413

(612) 331-1464

Date

October 15, 1998

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

5855343

Fig. 1

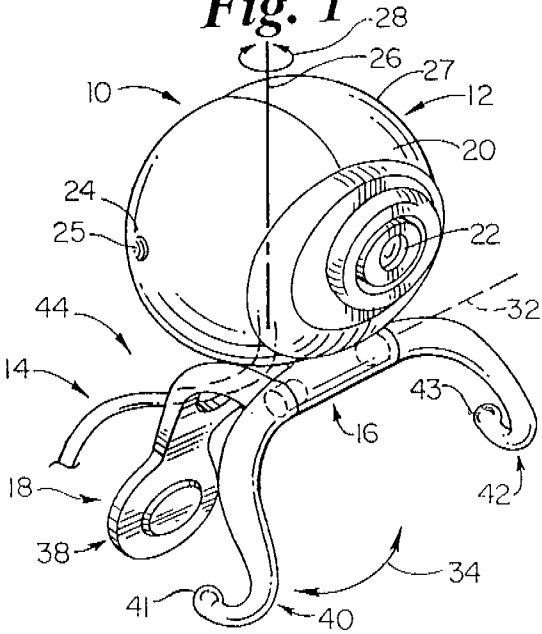


Fig. 2

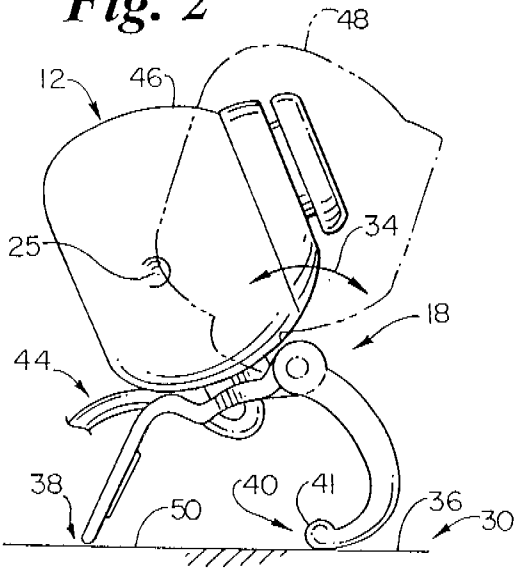


Fig. 3

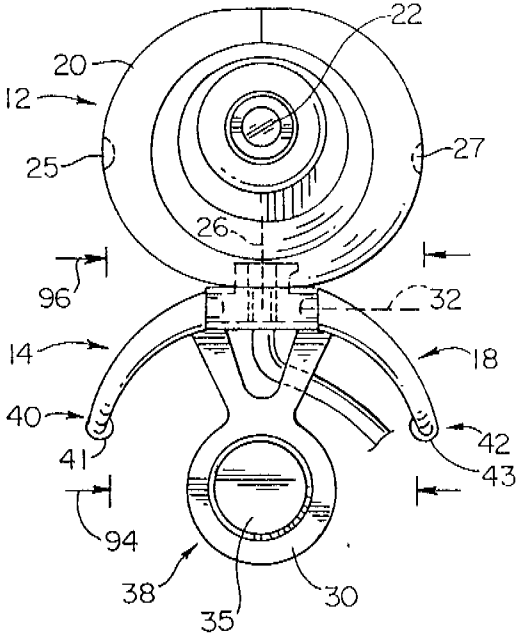
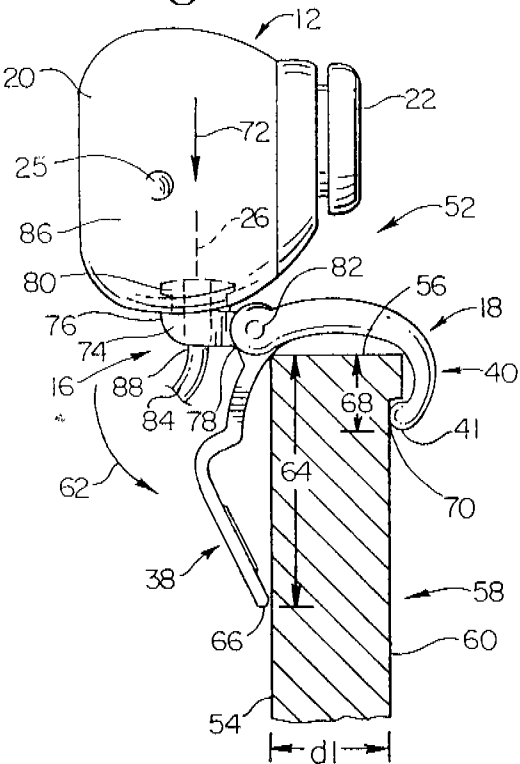


Fig. 4



APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

Fig. 5

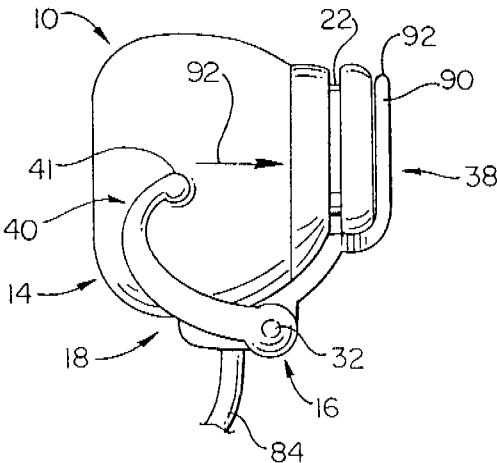


Fig. 6

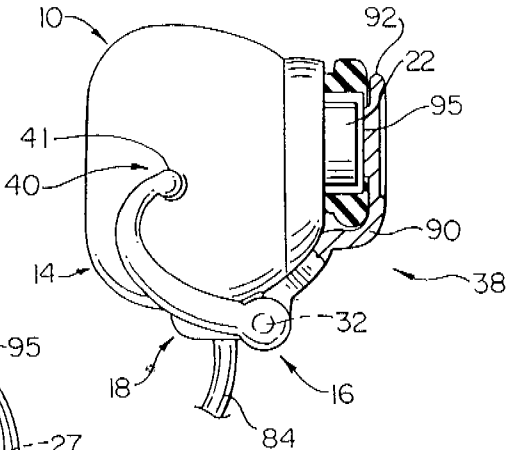
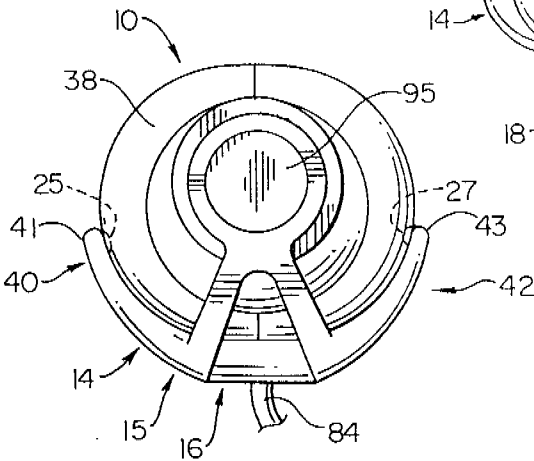


Fig. 7



The
United
States
of
America



PTO UTILITY GRANT

Paper Number 10

The Commissioner of Patents and Trademarks

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America for the term set forth below, subject to the payment of maintenance fees as provided by law.

If this application was filed prior to June 8, 1995, the term of this patent is the longer of seventeen years from the date of grant of this patent or twenty years from the earliest effective U.S. filing date of the application, subject to any statutory extension.

If this application was filed on or after June 8, 1995, the term of this patent is twenty years from the U.S. filing date, subject to an statutory extension. If the application contains a specific reference to an earlier filed application or applications under 35 U.S.C. 120, 121 or 365(c), the term of the patent is twenty years from the date on which the earliest application was filed, subject to any statutory extension.

Bruce Lehman
Commissioner of Patents and Trademarks

Ollie M. Person
Attest

Form PTO-1584 (Rev. 2/97)

(RIGHT INSIDE)

FRI LOM
ADJCAM000115

Text Input HTML page

<http://151.207.28.21:457/cgi-bin/text>

L1

59116 CAMERA

58127 CLIP

2 CAMERA CLIP

(CAMERA(W) CLIP)

=>

Text Input HTML page

http://151.207.28.21:457/cgi-bin/text_10

US PAT NO:	4,403,717 [IMAGE AVAILABLE]	L1: 1 of 2
TITLE:	Camera carrying device	
4,403,717 [IMAGE AVAILABLE]	5 CLASSIFICATIONS	L1: 1 of 2
1.	<u>224/666</u>	OR
2.	<u>224/268</u>	XR
3.	<u>224/269</u>	XR
4.	<u>224/667</u>	XR
5.	<u>224/908</u>	XR
US PAT NO:	3,962,711 [IMAGE AVAILABLE]	L1: 2 of 2
TITLE:	Accessory adapter for photographic apparatus	
3,962,711 [IMAGE AVAILABLE]	3 CLASSIFICATIONS	L1: 2 of 2
1.	<u>396/544</u>	OR
2.	<u>396/529</u>	XR
3.	<u>D16/211</u>	XR
=>		

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http://151.207.162.15:457/cgi-bin/text_10

US PAT NO:	5,111,983	[IMAGE AVAILABLE]	L1: 1 of 5
5,111,983	[IMAGE AVAILABLE]	3 CLASSIFICATIONS	L1: 1 of 5
1.	224/258	OR	
2.	224/908	XR	
3.	248/118	XR	
US PAT NO:	5,025,320	[IMAGE AVAILABLE]	L1: 2 of 5
5,025,320	[IMAGE AVAILABLE]	4 CLASSIFICATIONS	L1: 2 of 5
1.	348/373	OR	
2.	348/335	XR	
3.	348/722	XR	
4.	379/202	XR	
US PAT NO:	4,676,622	[IMAGE AVAILABLE]	L1: 3 of 5
4,676,622	[IMAGE AVAILABLE]	2 CLASSIFICATIONS	L1: 3 of 5
1.	396/428	OR	
2.	248/179.1	XR	
US PAT NO:	4,297,756	[IMAGE AVAILABLE]	L1: 4 of 5
4,297,756	[IMAGE AVAILABLE]	2 CLASSIFICATIONS	L1: 4 of 5
1.	7/127	OR	
2.	81/367	XR	
US PAT NO:	4,198,150	[IMAGE AVAILABLE]	L1: 5 of 5
4,198,150	[IMAGE AVAILABLE]	2 CLASSIFICATIONS	L1: 5 of 5
1.	396/422	OR	
2.	362/3	XR	
=>			

PATENT APPLICATION FEE DETERMINATION RECORD					Application or Docket Number	
Effective October 1, 1996					814168	
CLAIMS AS FILED - PART I						
(Column 1)		(Column 2)		SMALL ENTITY		OR
FOR	NUMBER FILED	NUMBER EXTRA		RATE	FEE	
BASIC FEE	[REDACTED]			[REDACTED]	385.00	OR
TOTAL CLAIMS	26	minus 20 =	*	x\$11=		OR
INDEPENDENT CLAIMS	2	minus 3 =	*	x40=		OR
MULTIPLE DEPENDENT CLAIM PRESENT				+130=		OR
				TOTAL		OR
				OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		RATE	FEE	
[REDACTED]		[REDACTED]		[REDACTED]	770.00	OR
x\$22=		132.00				
x80=						
+260=						
TOTAL		922.00				
CLAIMS AS AMENDED - PART II						
(Column 1)		(Column 2)		SMALL ENTITY		OR
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	
Total	* 21	Minus	** 26	x\$11=		OR
Independent	* 5	Minus	*** 3	x40=		OR
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				+130=		OR
				TOTAL		OR
				OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		RATE	ADDITIONAL FEE	
[REDACTED]		[REDACTED]		[REDACTED]	ADDITIONAL FEE	
x\$22=						
x80=						
+260=						
TOTAL		822.00				
AMENDMENT B						
(Column 1)		(Column 2)		SMALL ENTITY		OR
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	
Total	*	Minus	**	x\$11=		OR
Independent	*	Minus	***	x40=		OR
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				+130=		OR
				TOTAL		OR
				OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		RATE	ADDITIONAL FEE	
[REDACTED]		[REDACTED]		[REDACTED]	ADDITIONAL FEE	
x\$22=						
x80=						
+260=						
TOTAL						
AMENDMENT C						
(Column 1)		(Column 2)		SMALL ENTITY		OR
AMENDMENT C	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE	ADDITIONAL FEE	
Total	*	Minus	**	x\$11=		OR
Independent	*	Minus	***	x40=		OR
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM				+130=		OR
				TOTAL		OR
				OTHER THAN SMALL ENTITY		
(Column 1)		(Column 2)		RATE	ADDITIONAL FEE	
[REDACTED]		[REDACTED]		[REDACTED]	ADDITIONAL FEE	
x\$22=						
x80=						
+260=						
TOTAL						

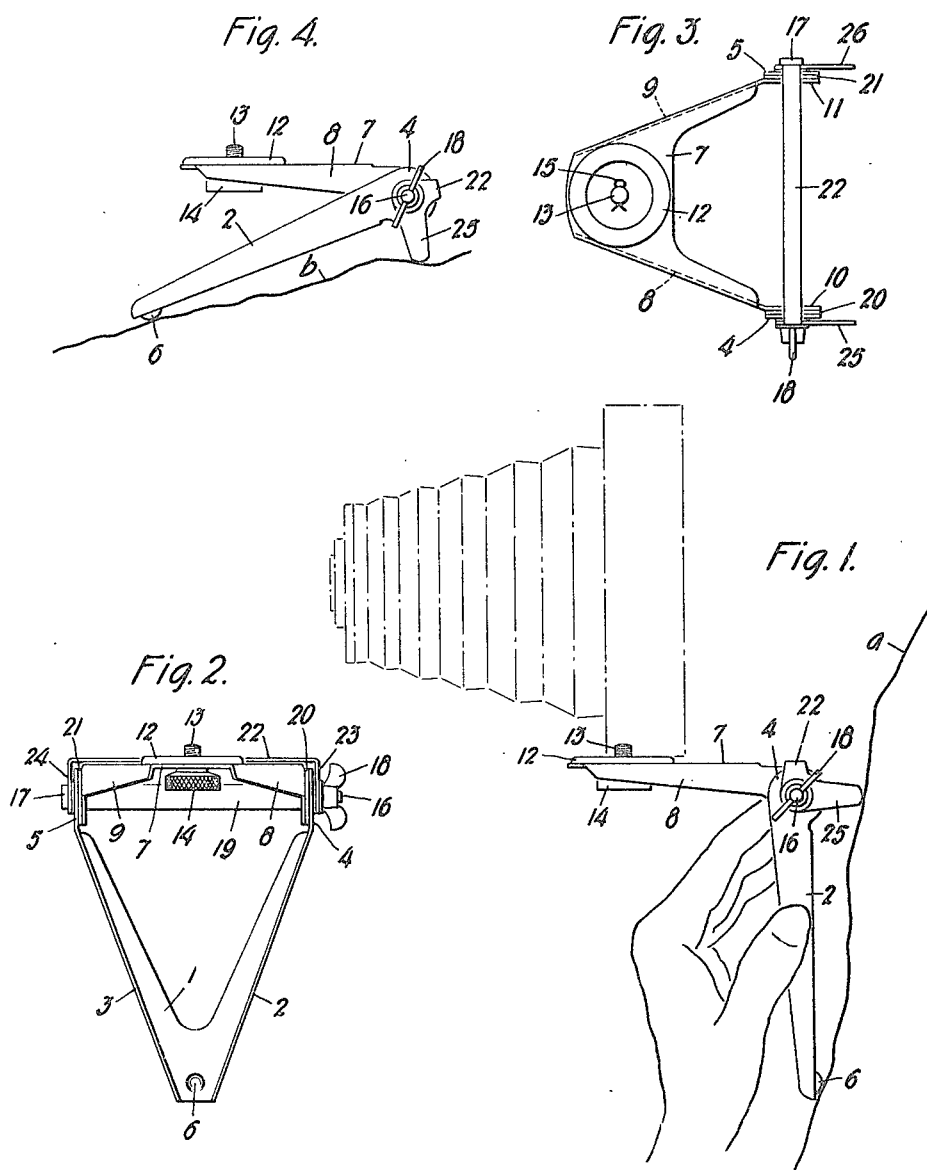
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
 ** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20."
 *** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3."
 The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

E. S. McALL.
CAMERA HOLDING DEVICE.
APPLICATION FILED APR. 29, 1915.

1,208,344.

Patented Dec. 12, 1916.

2 SHEETS—SHEET 1.



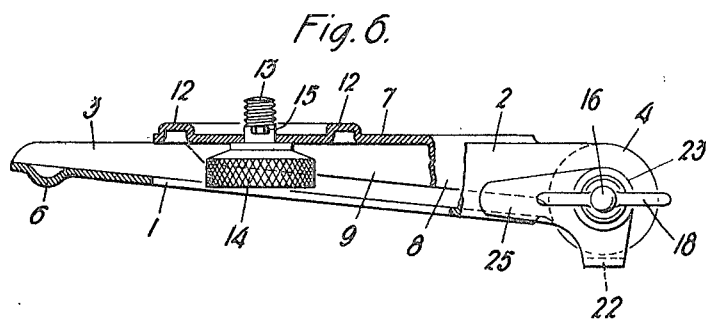
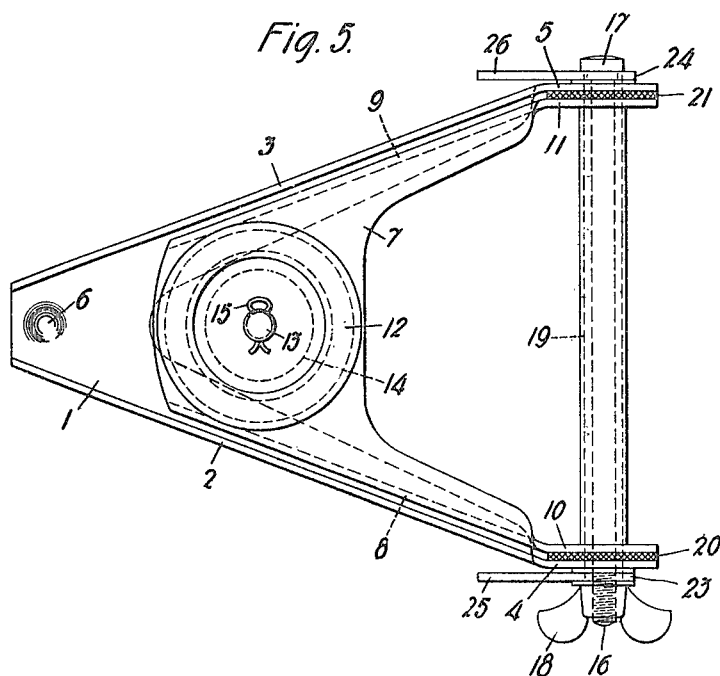
INVENTOR.
Edward S. McAll

E. S. McALL,
CAMERA HOLDING DEVICE.
APPLICATION FILED APR. 29, 1915.

1,208,344.

Patented Dec. 12, 1916.

2 SHEETS—SHEET 2.



INVENTOR.
Edward S. McCall

UNITED STATES PATENT OFFICE.

EDWARD S. McALL, OF ILION, NEW YORK.

CAMERA-HOLDING DEVICE.

1,208,344.

Specification of Letters Patent.

Patented Dec. 12, 1916.

Application filed April 29, 1915. Serial No. 24,866.

To all whom it may concern:

Be it known that I, EDWARD S. McALL, a citizen of the United States, and a resident of Ilion, in the county of Herkimer and State of New York, have invented a certain new and useful Improvement in Camera-Holding Devices, of which the following is a full, clear, and exact description, reference being made to the accompanying drawings, forming part of this specification.

This invention relates to improvements in camera-holding devices which include means to enable a camera to be adjusted for use by moving it angularly on a horizontal axis, the main object of the invention being to facilitate the operation of cameras under conditions which now are apt to be more or less troublesome.

The invention consists of a camera-holding device comprising the parts, and having the construction and arrangement of parts, which are hereinafter described and specified in the claims.

On the accompanying two sheets of drawings, on which like reference-numerals designate like parts of different views: Figure 1 is a side elevation of a camera-holding device which embodies the invention in its preferred form; Fig. 2, a front elevation of this device; Fig. 3, a plan thereof; Fig. 4, another side elevation thereof; Fig. 5, another plan, the relative positions of the parts differing from those shown in Fig. 3; and Fig. 6, a side and sectional view, the relative positions of the parts being the same as shown in Fig. 5.

The particular camera-holding device shown comprises what is essentially a low tripod, a platform hinged thereto, and a clamp which is effective to hold the platform adjusted with relation to the base in any of a large number of positions. That it differs much in character from ordinary tripods is plainly indicated by its utility in various places where any of them are useless, as well as by peculiarities of its construction and its mode of operation. For example, it will properly support a camera in a desired position when the device is held by the hand against a wall, or post, or trunk of a tree, or the steeply sloping or vertical face of a rock or cliff, as illustrated in Fig. 1, in which the surface against which the device is held is represented by the irregular line *a*, and the camera by broken lines,

or when the device stands, as shown in Fig. 4, on a small and inclined surface *b*, such as that of a rock, log, or branch of a tree, or on a flat surface which is too small to enable a common tripod to stand on it and which may be the top of a post, stump of a tree, or something else.

The tripod and platform of this device are made from thin sheet metal, the head of the tripod consisting of a single piece of stock and being the base on which the platform is mounted. This base is an approximately V-shaped frame including the flat portion 1 (Fig. 2), the lateral flanges or sides 2 and 3, which are preferably straight, and the perforated parts 4 and 5 which are continuations of the flanges and form a pair of eyes at the broad end of the base. The projection 6, consisting of a struck up portion of the stock of the frame or base, is one of the feet of the tripod. The platform, which is also a single piece of stock, includes the part 7, the lateral flanges or sides 8 and 9, and the perforated continuations 10 and 11 of the flanges, the part 7 being flat except where it forms the annular struck up camera-seat 12, and the portions 10 and 11 forming eyes similar to the eyes 4 and 5 of the base. The eyes of the platform fit loosely between the eyes of the base and the flanges of the platform between the flanges of the base, so that the platform and base may lie close together as appears by Figs. 5 and 6. The screw 13 having the milled head 14 extends loosely through the part 7 at the center of the seat 12, the cotter pin 15, which passes through the stem of the screw and lies close to the face of the platform, being a keeper for the screw.

The bolt 16, having at one end the head 17 and at the other the winged nut 18, passes through the eyes of the platform and base, and on this bolt are also the spacing-sleeve 19, the friction-washers 20 and 21, and a yoke comprising the bar 22, eyes 23 and 24, and parts 25 and 26 which form both the ends of the yoke and the two other feet of the tripod. The sleeve 19 fits closely between the eyes 10 and 11, each friction-washer is between an eye of the base and the adjacent eye of the platform, and the eyes of the yoke surround the bolt outside of the eyes of the base.

Although the parts of the device might be otherwise arranged, the arrangement shown and described is preferred because it en-

ables the parts to fit together as shown in Figs. 5 and 6, and renders the distance between the feet 25 and 26 greater than the width of the base or frame at its broad end. The bolt and three pairs of eyes constitute means by which the base, platform and yoke are hinged together, each of these three parts being angularly movable on the axis of the bolt with relation to the two others, and the bolt, spacing-sleeve and nut form a clamp by which the parts may be tightly held in various positions to which they may be adjusted.

It will be seen that whether the base is vertical or nearly horizontal the platform may be either horizontal or vertical or may be inclined at any desired angle to the plane of the horizon. The yoke so turns that the feet 25 and 26, which are fast together and turn together on the axis of the bolt, may be located behind the bolt as they are shown in Figs. 1, 3 and 4, or at the sides of the base as they are shown in Figs. 5 and 6, their length being much less than that of the base or that of the bolt, so that they do not project far from the base at the sides thereof and so that when the device either is held against a vertical or steeply sloping surface, or rests on a flat or slightly inclined surface, there is but little space between the base and that surface and the device is far more stable than an ordinary tripod having legs that are many times as long as the head of the tripod. The camera rests on the seat 12 and is fastened to the platform by the screw 13, when the holding-device and camera are in use, the screw fitting in a hole in the frame of the camera and engaging with an internal screw-thread formed in that frame. Then the feet 25 and 26 are behind the bolt. The platform may be readily adjusted and clamped in the desired position when the feet rest on the object on which the device is to stand or against which it is to be held. Of course the axis of the bolt will usually be horizontal when the platform is adjusted and the camera operated.

A camera-holding device like that described and suitable to hold a small camera may be conveniently carried in an ordinary coat-pocket.

It will be understood that the invention may be embodied in devices differing in details of construction from the camera-holding device shown and particularly described herein.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A camera-holding device comprising a base, a platform hinged thereto, feet adjacent to the ends of the hinge, and a clamp effective to hold the platform adjusted with relation to the base, these feet being fast together and their length being less than that

of the base and less than the width of that part of the base which is next to the hinge.

2. A camera-holding device comprising a base, a platform hinged thereto, a clamp effective to hold the platform adjusted with relation to the base, and angularly movable feet adjacent to the ends of the hinge, these feet being fast together and their length being less than that of the base and less than the width of that part of the base which is next to the hinge.

3. A camera-holding device comprising a base, a platform hinged thereto, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge, and the other being fast on the base.

4. A camera-holding device comprising a base, a platform hinged thereto, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge and being pivotally connected with the base, and the other being fast on the base.

5. A camera-holding device comprising a base, a platform hinged thereto, a fastening to secure the camera on the platform, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge and the other being fast on the base.

6. A camera-holding device comprising a base, a platform hinged thereto, a screw attached to and extending through the platform, a clamp effective to hold the platform adjusted with relation to the base, and three short feet which with the base form a low tripod, two of the feet being adjacent to the ends of the hinge, and the platform including a camera-seat surrounding the screw and the other being fast on the base.

7. A camera-holding device comprising a base, a platform, a yoke, and a bolt on which the three other parts are mounted and on which they are angularly movable, the ends of the yoke forming feet.

8. A camera-holding device comprising a base, a platform, a yoke, a bolt on which said three other parts are mounted and on which they are angularly movable, a spacing-sleeve, and a pair of friction-washers, the ends of the yoke forming feet, the base, platform and yoke each having a pair of eyes through which the bolt extends, the spacing-sleeve being on the bolt between the eyes of each pair, each of the friction-washers being on the bolt between an eye of the base and an eye of the platform, and the eyes of both the base and platform being between those of the yoke.

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9. A camera-holding device comprising a base, a platform hinged thereto, a clamp, and two feet which are pivotally connected with the base, the clamp being effective to hold the platform and feet adjusted with relation to the base.

10. A camera-holding device comprising a base, a platform hinged thereto, a clamp, and three feet which with the base form a tripod, two of the feet being adjacent to the ends of the hinge, the clamp being effective to hold the platform adjusted with relation to the base, and the base and platform each having lateral flanges, those of one part fitting between those of the other.

11. A camera-holding device comprising a base which is narrow at one end and the lateral edges of which are straight and diverge as they recede from that end and which has eyes at its broad end, a platform which is broader at one end than at the other and which has eyes at its broad end and a camera-seat at its narrow end, a bolt which extends through the eyes of the base and platform, a spacing-sleeve on the bolt, and three feet which with the base form a tripod, two of the feet being adjacent to the eyes of the base and the other being on the base close to its narrow end.

12. A camera-holding device comprising a base which is narrow at one end and the lateral edges of which are straight and diverge as they recede from that end and which has eyes at its broad end, a platform which is broader at one end than at the other and which has eyes at its broad end and a camera-seat at its narrow end, a bolt

which extends through the eyes of the base and platform and on which at one end is a winged nut, the eyes of the platform being between those of the base, a spacing-sleeve which surrounds the bolt and fits between the eyes of the platform, and three feet which with the base form a tripod, one of the feet being on the base close to its narrow end and the others being on the bolt and being angularly movable thereon, one of them being next to the head of the bolt and the other next to the winged nut.

13. A camera-holding device comprising a base which is narrow at one end and the lateral edges of which diverge as they recede from that end, a platform which is broader at one end than at the other and has on it a camera-seat, the base and platform being pivotally connected together at their broad ends, a fastening to secure a camera on the platform, and a clamp effective to hold the platform adjusted with relation to the base.

14. A camera-holding device comprising a base which is narrow at one end and has lateral flanges which diverge as they recede from that end, a platform which is broader at one end than at the other and has on it a camera-seat, the base and platform being pivotally connected together at their broad ends, a fastening to secure a camera on the platform, and a clamp effective to hold the platform adjusted with relation to the base, the platform being adjustable to a position in which it fits close to the base from end to end and between the flanges of the base.

EDWARD S. McALL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, P. C."

Corrections in Letters Patent No. 1,208,344.

It is hereby certified that in Letters Patent No. 1,208,344, granted December 12, 1916, upon the application of Edward S. McAll, of Ilion, New York, for an improvement in "Camera-Holding Devices," errors appear in the printed specification requiring correction as follows: Page 2, line 109, claim 6, after the word "hinge" and before the comma insert the words *and the other being fast on the base*; same page and claim, at the end of line 110 insert a period and strike out line 111; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 9th day of January, A. D., 1917.

[SEAL.]

F. W. H. CLAY,

Acting Commissioner of Patents.

MPI Family Report (Family Bibliographic and Legal Status)

In the MPI Family report, all publication stages are collapsed into a single record, based on identical application data. The bibliographic information displayed in the collapsed record is taken from the latest publication.

Report Created Date: 2010-02-22

Name of Report:

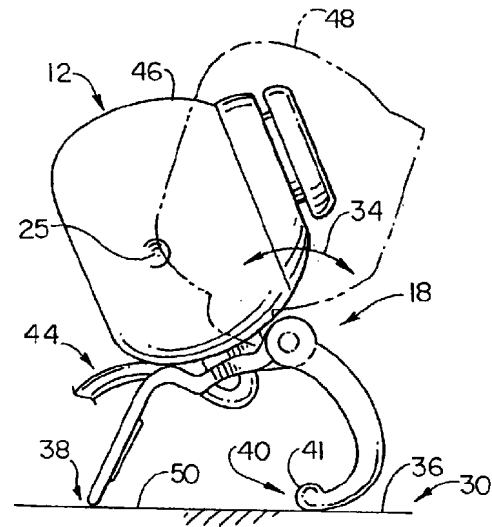
Number of Families: 1

Comments:

Table of Contents

1.	US5855343A	19990105	IREZ RESEARCH CORP	US	
	Camera clip				1



Family1**1 records in the family.****US5855343A 19990105****(ENG) Camera clip****Assignee:** IREZ RESEARCH CORP US**Inventor(s):** KREKELBERG DAVID E US**Application No:** US 81416897 A**Filing Date:** 19970307**Issue/Publication Date:** 19990105

Abstract: (ENG) A clip for supporting a portable camera either on a surface or on an edge of a housing, and for protecting the lens of the camera when the camera is not being supported. The clip provides two axis of rotation to position the camera to any desired viewing angle. The clip may be rotated to a first position to support the camera on a surface of a table or desk. The clip may be rotated to a second position to support the camera on the display screen of a laptop computer. When the camera is not being supported in the first position or the second position, the camera may be rotated to be releasably held by the clip to protect the camera and lens during storage.

Priority Data: US 81416897 19970307 A I;**IPC (International Class):** A47G02900**ECLA (European Class):** F16M01302; F16M01112; F16M01120; G06F00116P2C**US Class:** 248121; 248126; 248918**Agent(s):** Nawrocki, Rooney & Sivertson, P**Examiner Primary:** Ramirez, Ramon O.**Examiner Assistant:** Phan, Long Dinh**US Post Issuance:**

--US Litigations: NOTICE OF LITIGATION; NOTICE OF LITIGATION PAR Technologies, Inc. v. Philips Electronics North America Corporation, et al, Filed Jul. 9, 2001, D.C. Arizona (Phoenix), Doc. No. CIV '01 1273 PHX MHM; NOTICE OF LITIGATION Logitech, Inc. v. Par Technologies, Inc. , Filed May 21, 2001, D.C. N.D. California, Doc. No. C01-1983 SI Order of dismissal with prejudice pursuant to the parties' settlement agreement, Filed January 14, 2002, Honorable Susan Illston, United States District Court, Northern District of California

Assignments Reported to USPTO:**Reel/Frame:** 08730/0592 **Date Signed:** 19970813 **Date Recorded:** 19970827**Assignee:** IREZ RESEARCH, CORPORATION SUITE 485 5929 BAKER ROAD MINNETONKA MINNESOTA 55345**Assignor:** KREKELBERG, DAVID E.**Corres. Addr:** NAWROCKI, ROONEY & SIVERTSON, P.A. LAWRENCE M. NAWROCKI 3433 BROADWAY STREET N.E., SUITE 401 MINNEAPOLIS, MN 55413**Brief:** ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Reel/Frame: 09669/0507 **Date Signed:** 19981219 **Date Recorded:** 19981231
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Assignor: WIYN INVESTMENTS

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Assignor: PAR TECHNOLOGIES, INC.

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Brief: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Reel/Frame: 17207/0320 **Date Signed:** 20060223 **Date Recorded:** 20060223
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Assignor: WIYN INVESTMENTS, LLC

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Brief: ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS).

Legal Status:

Date	+/-	Code	Description
19970827	()	AS	New owner name: IREZ RESEARCH, CORPORATION, MINNESOTA; : ASSIGNMENT OF ASSIGNORS INTEREST; ASSIGNOR: KREKELBERG, DAVID E.; REEL/FRAME: 008730/0592; Effective date: 19970813;



19970827	()	AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: IREZ RESEARCH, CORPORATION SUITE 485 5929 BAKER RO; Effective date: 19970813;
19970827	()	AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: KREKELBERG, DAVID E.; Effective date: 19970813;
19970827	()	AS02	New owner name: IREZ RESEARCH, CORPORATION SUITE 485 5929 BAKER RO; Effective date: 19970813;
19970827	()	AS02	New owner name: KREKELBERG, DAVID E.; Effective date: 19970813;
19981231	()	AS	New owner name: ANCHOR BANK NA, MINNESOTA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:IREZ RESEARCH CORP.;REEL/FRAME:009669/0507; Effective date: 19981219;
19981231	()	AS	New owner name: PAR TECHNOLOGIES, INC., ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:ANCHOR BANK NA;REEL/FRAME:009671/0084; Effective date: 19981219;
19981231	()	AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: PAR TECHNOLOGIES, INC. 14605 AIRPORT DRIVE, SUITE; Effective date: 19981219;
19981231	()	AS02	ASSIGNMENT OF ASSIGNOR'S INTEREST New owner name: ANCHOR BANK NA; Effective date: 19981219;
19981231	()	AS02	New owner name: PAR TECHNOLOGIES, INC. 14605 AIRPORT DRIVE, SUITE; Effective date: 19981219;
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20020403	()	AS	ASSIGNMENT New owner name: WIYN INVESTMENTS 865 EAST SWEETWATER AVENUE SCOTTS; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:PAR TECHNOLOGIES, INC.;REEL/FRAME:012745/0992; Effective date: 20020312;
20020403	()	AS	ASSIGNMENT New owner name: WIYN INVESTMENTS 865 EAST SWEETWATER AVENUESCOTTS; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:PAR TECHNOLOGIES, INC. /AR;REEL/FRAME:012745/0992; Effective date: 20020312;
20020403	()	AS	New owner name: WIYN INVESTMENTS, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:PAR TECHNOLOGIES, INC.;REEL/FRAME:012745/0992; Effective date: 20020312;
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20020403	()	AS	New owner name: WIYN INVESTMENTS 865 EAST SWEETWATER AVENUESCOTTS; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:PAR TECHNOLOGIES, INC. /AR;REEL/FRAME:012745/0992; Effective date: 20020312;
20020422	()	AS	ASSIGNMENT New owner name: GLOBALMEDIA GROUP 15020 NORTH 74TH STREET SCOTTS; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS;REEL/FRAME:012813/0714; Effective date: 20020312;



20020422	()	AS	ASSIGNMENT New owner name: GLOBALMEDIA GROUP 15020 NORTH 74TH STREETSCOTTSDAL; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS /AR;REEL/FRAME:012813/0714; Effective date: 20020312;
20020422	()	AS	New owner name: GLOBALMEDIA GROUP, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS;REEL/FRAME:012813/0714; Effective date: 20020312;
20020422	()	AS	New owner name: GLOBALMEDIA GROUP 15020 NORTH 74TH STREET SCOTTSDA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS;REEL/FRAME:012813/0714; Effective date: 20020312;
20020422	()	AS	New owner name: GLOBALMEDIA GROUP 15020 NORTH 74TH STREETSCOTTSDAL; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS /AR;REEL/FRAME:012813/0714; Effective date: 20020312;
20060222	()	AS	ASSIGNMENT New owner name: WIYN INVESTMENTS, LLC, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:PAR TECHNOLOGIES, INC.;REEL/FRAME:017198/0952; Effective date: 20060222;
20060222	()	AS	New owner name: WIYN INVESTMENTS, LLC, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:PAR TECHNOLOGIES, INC.;REEL/FRAME:017198/0952; Effective date: 20060222;
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20060223	()	AS	ASSIGNMENT New owner name: GLOBALMEDIA GROUP, LLC, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS, LLC;REEL/FRAME:017207/0320; Effective date: 20060223;
20060223	()	AS	New owner name: GLOBALMEDIA GROUP, LLC, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS, LLC;REEL/FRAME:017207/0320; Effective date: 20060223;
20060223	()	AS	New owner name: GLOBALMEDIA GROUP, LLC, ARIZONA; : ASSIGNMENT OF ASSIGNORS INTEREST;ASSIGNOR:WIYN INVESTMENTS, LLC;REEL/FRAME:017207/0320; Effective date: 20060223;



USPTO Maintenance Report

Patent Bibliographic Data				02/22/2010 05:21 PM	
Patent Number:	5855343			Application Number:	08814168
Issue Date:	01/05/1999			Filing Date:	03/07/1997
Title:	CAMERA CLIP				
Status:	12th year fee window opens: 01/05/2010			Entity:	Small
Window Opens:	01/05/2010	Surcharge Date:	07/07/2010	Expiration:	N/A
Fee Amt Due:	\$2,055.00	Surchg Amt Due:	\$0.00	Total Amt Due:	\$2,055.00
Fee Code:	2553	MAINTENANCE FEE DUE AT 11.5 YEARS			
Surcharge Fee Code:					
Most recent events (up to 7):	08/23/2006 08/23/2006 07/26/2006 08/19/2002 08/19/2002 07/23/2002	Payment of Maintenance Fee, 8th Yr, Small Entity. 7.5 yr surcharge - late pmt w/in 6 mo, Small Entity. Maintenance Fee Reminder Mailed. Payment of Maintenance Fee, 4th Yr, Small Entity. Surcharge for late Payment, Small Entity. Maintenance Fee Reminder Mailed. --- End of Maintenance History ---			
Address for fee purposes:	GLOBAL MEDIA GROUP, LLC 15020 N. 74TH STREET, SUITE B SCOTTSDALE, AZ 85260				